

TM 5-4110-204-13

DEPARTMENT OF THE ARMY TECHNICAL MANUAL

OPERATOR'S, ORGANIZATIONAL AND DIRECT SUPPORT MAINTENANCE MANUAL

(INCLUDING REPAIR PARTS LIST)

REFRIGERATOR, PREFABRICATED; PANEL TYPE; W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS
MIL-R-10932

TYPE I, CLASS I AND II

600 CU FT, FSN 4110-269-5096

1200 CU FT, FSN 4110-926-4159

1800J CU FT, FSN 4110-168-1937

600J CU FT, FSN 4110-926-9544

1800 CU FT, FSN 4110-057-0321

3000 CU FT, FSN 4110-264-6226

4000 CU FT, FSN 4110-269-5071

TYPE II, CLASS I AND II

400 CU FT, FSN 4110-618-8709

800 CU FT, FSN 4110-618-8711

1400 CU FT, FSN 4110-618-8713

600 CU FT, FSN 4110-618-8710

1200 CU FT, FSN 4110-618-8712

1600 CU FT, FSN 4110-618-8714

SAFETY PRECAUTIONS

Keep hands free from the striker hatch plate and latch when going in or out of the refrigerator.

Disconnect the electrical power before making any repairs to the electrical components.

Be sure inside walk-in door latch is in proper operating condition to prevent personnel from becoming locked inside the refrigerator.

Change }
No. 10 }

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DEPARTMENT OF THE ARMY
WASHINGTON, D.C., 7 October 1966

Operator's, Organizational, and Direct Support
Maintenance Manual
(Including Repair Parts List)

REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS
MIL-R-10932

600 cu ft NSN 4110-00-269-5096	600J cu ft NSN 4110-00-926-9544
1200 cu ft NSN 4110-00-926-4159	1800 cu ft NSN 4110-00-057-0321
1800J cu ft NSN 4110-00-168-1937	3000 cu ft NSN 4110-00-264-6226
TK600J cu ft NSN 4110-00-571-5027	4000 cu ft NSN 4110-00-269-5071
TK1200J cu ft NSN 4110-00-574-5744	TKR600A cu ft NSN 4110-01-119-3960
TK4000J cu ft NSN 4110-00-574-5789	TKR1200A cu ft NSN 4110-01-120-5735
TKR4000A cu ft NSN 4110-01-119-3962	TKR1800A cu ft NSN 4110-01-119-3961

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Remove pages
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3. New or changed text material is indicated by a vertical bar in the margin. An illustration change is indicated by a miniature pointing hand.

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By Order of the Secretary of the Army:

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Operator's, Organizational, and Direct Support
Maintenance Manual
(Including Repair Parts List)

REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS
MIL-R-10932
TYPE I, CLASS I and II

600 cu ft NSN 4110-00-269-5096	600J cu ft NSN 4110-00-926-9544
AA-1200 cu ft NSN 4110-01-113-6577	1800 cu ft NSN 4110-00-057-0321
1600J cu ft NSN 4110-00-166-1937	3000 cu ft NSN 4110-00-264-6226
TK600J cu ft NSN 4110-00-571-5027	4000 cu ft NSN 4110-00-269-5071
TK1200J cu ft NSN 4110-00-574-5744	
TK4000J cu ft NSN 4110-00-574-5789	

TYPE II, CLASS I AND II

400 cu ft NSN 4110-00-618-8709	600 cu ft NSN 4110-00-618-8710
800 cu ft NSN 4110-00-618-8711	1200 cu ft NSN 4110-00-618-8712
1400 cu ft NSN 4110-00-618-8713	1600 cu ft NSN 4110-00-618-8714

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Chief of Staff

Official:

ROBERT M. JOYCE
Brigadier General, United States Army
The Adjutant General

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DEPARTMENT OF THE ARMY
WASHINGTON, DC 29 March 1976

**Operator's, Organizational, and Direct Support
Maintenance Manual
(Including Repair Parts List)**

**REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS
M-R-10932**

TYPE 1, CLASS I AND II

600 cu ft NSN 4110-00-269-5096

600J cu ft NSN 4110-00-926-9544

1200 cu ft NSN 4110-00-926-4159

1800 cu ft NSN 4110-00-057-0321

1800J cu ft NSN 4110-00-168-1937

3000 cu ft NSN 4110-00-264-6226

TK600J cu ft NSN 4110-00-571-5027

4000 cu ft NSN 4110-00-269-5071

TK1200J cu ft NSN 4110-00-574-5744

TK4000J cu ft NSN 4110-00-574-5789

TYPE II, CLASS I AND II

400 cu ft NSN 4110-00-618-8709

600 cu ft NSN 4110-00-618-8710

800 cu ft NSN 4110-00-618-8711

1200 cu ft NSN 4110-00-618-8712

1400 cu ft NSN 4110-00-618-8713

1600 cu ft NSN 4110-00-618-8714

CURRENT AS OF 24 OCTOBER 1975

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To be distributed in accordance with DA Form 12-25C, Operator requirements for Refrigeration

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**Operator's, Organizational, and Direct Support
Maintenance Manual
(Including Repair Parts List)
REFRIGERATOR, PREFABRICATED; PANEL TYPE, W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATIONS
MIL-R-10932**

TYPE 1, CLASS 1 and 11

00 cu ft., NSN 4110-00-269-5096	600J cu ft., NSN 4110-00-926-9544
200 cu ft., NSN 4110-00-926-4159	1800 cu ft., NSN 4110-00-057-0321
800J cu ft., NSN 4110-00-168-1937	3000 cu ft., NSN 4110-00-264-6226
	4000 cu ft., NSN 4110-00-269-5071

TYPE 11, CLASS 1 AND 11

00 cu ft., NSN 4110-00-618-8709	600 cu ft., NSN 4110-00-618-8710
00 cu ft., NSN 4110-00-618-8711	1200 cu ft., NSN 4110-00-618-8712
400 cu ft., NSN 4110-00-618-8713	1600 cu ft., NSN 4110-00-618-8714

Current as of 28 April 1975

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Remove pages

1-1 through 1-4

2-1 and 2-2

2-5 and 2-6

4-3 and 4-4

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1-1 through 1-4

2-1 and 2-2

2-5 and 2-6

4-3 and 4-4

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Major General, United States Army

The Adjutant General

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TM 5-4110-204-13
C 6

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DEPARTMENT OF THE ARMY
WASHINGTON, DC, 14 March 1975

**Operator's, Organizational, and Direct Support
Maintenance Manual**

**REFRIGERATOR, PREFABRICATED, PANEL TYPE, W/O
REFRIGERATING EQUIPMENT, MILITARY SPECIFICATIONS MIL-R-10932
TYPE I, CLASS I AND II**

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1800J CU. FT. NSN 4110-00-168-1937, 600J CU. FT. NSN 4110-00-926-9544
1800 CU. FT. NSN 4110-00-057-0321, 4000 CU. FT. NSN 4110-00-269-5071
3000 CU. FT. NSN 4110-00-264-6226**

TYPE I, CLASS I AND II

**400 CU. FT. NSN 4110-00-618-8709, 800 CU. FT. NSN 4110-00-618-8711
1400 CU. FT. NSN 4110-00-618-8713, 600 CU. FT. NSN 4110-00-618-8710
1200 CU. FT. NSN 4110-00-618-8712, 1600 CU. FT. NSN 4110-00-618-8714**

TM 5-4110-204-13, 14 December 1966, is changed as follows:

The title is changed as shown above.

Page 2 of cover. Add the following warning to the list of safety precautions.

WARNING

The burning of polyurethane foams is dangerous. Due to the chemical composition of a polyurethane foam, toxic fumes are released when it is burned or heated. If it is burned or heated indoors, such as during a welding operation in its proximity, precautions should be taken to adequately ventilate the area. An exhaust system equivalent to that of a paint spray booth should be used. Air supplied respirators, approved by the National Institute for Occupational Safety and Health or the US Bureau of Mines, should be used for all welding in confined spaces and when ventilation is inadequate.

Official:

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*General, United States
Chief of Staff*

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*Major General, United States Army
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maintenance requirements for Refrigeration Equipment.

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WASHINGTON, D.C., 9 May 1974

**Operator's Organizational, and
Direct Support Maintenance Manual
(Including Repair Parts List)
REFRIGERATOR, PREFABRICATED; PANEL TYPE; W/O
REFRIGERATING EQUIPMENT; MILITARY SPECIFICATION
MIL-R-10932**

TYPE I, CLASS I AND II

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1200 CU FT, FSN 4110-926-4159
1800J CU FT, FSN 4110-168-1937**

**600J CU FT, FSN 4110-926-9544
1800 CU FT, FSN 4110-057-0321
4000 CU FT, FSN 4110-269-5071
3000 CU FT, FSN 4110-264-6226**

TYPE II, CLASS I and II

**400 CU FT, FSN 4110-618-8709
800 CU FT, FSN 4110-618-8711
1400 CU FT, FSN 4110-618-8713**

**600 CU FT, FSN 4110-618-8710
1200 CU FT, FSN 4110-618-8712
1600 CU FT, FSN 4110-618-8714**

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Remove Pages

i
None
2-1 and 2-2
3-9 and 3-10
Figure 4-1
4-3

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i
1-4.01
2-1 and 2-2
3-9 and 3-10
Figure 4-1
4-3

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Operator's Organizational, and
Direct Support Maintenance Manual
(Including Repair Parts List)

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3000 CU FT, FSN 4110-264-6226
4000 CU FT, FSN 4110-269-5071

TYPE II, CLASS I AND II

400 CU FT, FSN 4110-618-8709
800 CU FT, FSN 4110-618-8711
1400 CU FT, FSN 4110-618-8713

600 CU FT, FSN 4110-618-8710
1200 CU FT, FSN 4110-618-8712
1600 CU FT, FSN 4110-618-8714

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INTRODUCTION

Section I. GENERAL

1-1. Scope

a. These instructions are published for use by personnel to whom the panel type refrigerator is issued. They provide information on the operation and maintenance of the equipment. Also included are descriptions of main units and their function in relationship to other components.

b. Appendix A contains a list of publications applicable to this manual. Appendix B contains the list of Items Troop Installed or Authorized for use with the equipment. Appendix C contains the maintenance allocation chart. The organizational maintenance repair parts and special tools are listed in appendix D.

c. Numbers in parentheses on illustrations indicate quantity. Numbers preceding nomenclature callouts on illustrations indicate the preferred maintenance sequence.

d. You can improve this manual by recommending improvements using DA Form 2028 (Recommended Changes to Publications and Blank Forms) or DA Form 2028-2 (Recommended Changes to Equipment Technical Manuals) located in the back of the manual and mail the form direct to Commander, US Army Troop Support Command, ATTN: AMSTS-MPP, 4300 Goodfellow Blvd., St. Louis, MO 63120. A reply will be furnished direct to you.

e. To enable timely and effective evaluation, it is important that complete and comprehensive data be submitted on DA Form 2028, including the reason for submission if that fact is not self-evident.

1-2. Record and Report Forms

For record and report forms applicable to operator, crew and organizational maintenance, refer to TM 38-750.

Section II. DESCRIPTION AND DATA

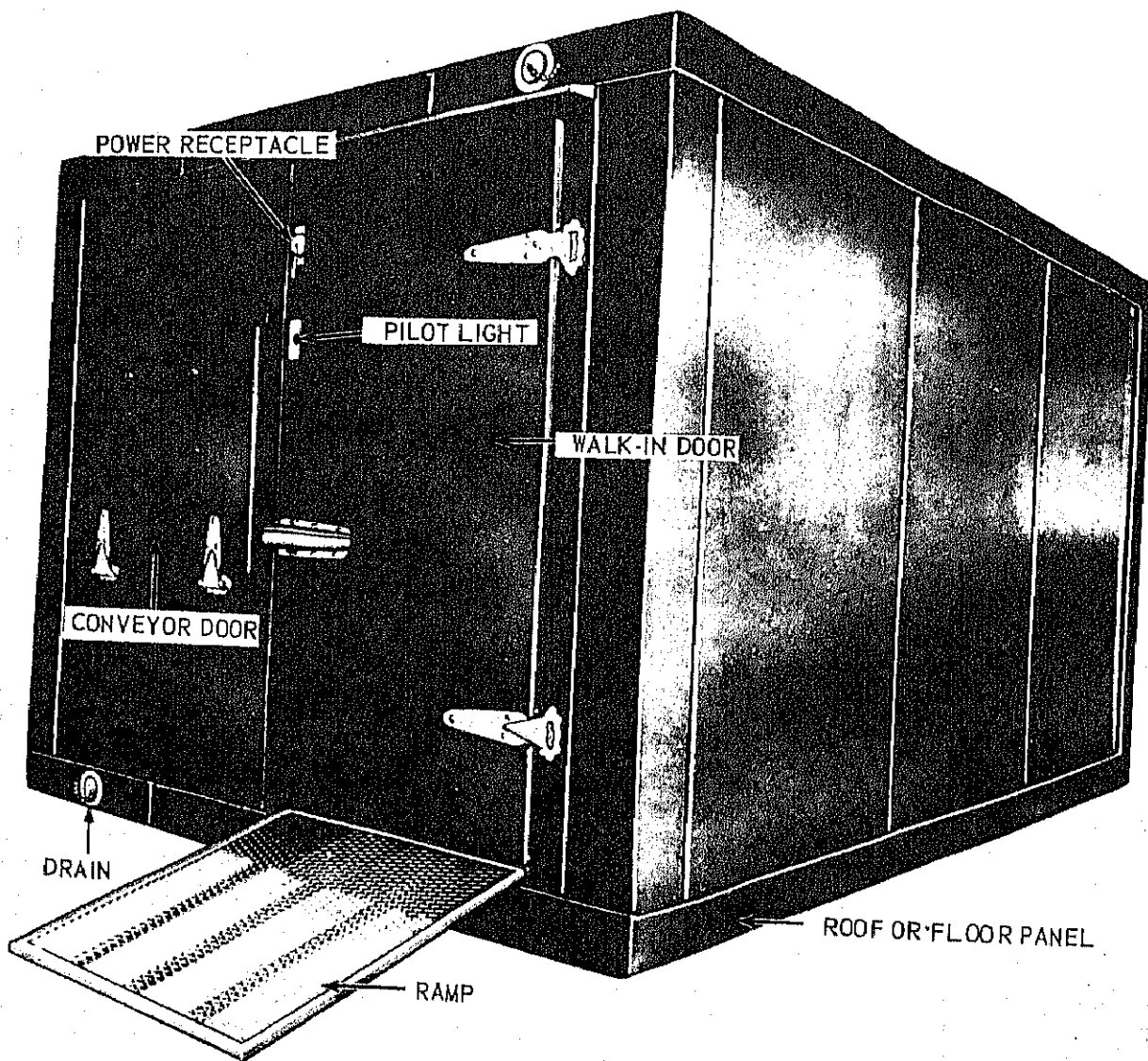
1-3. Description

a. *General.* The prefabricated walk-in refrigerators (fig. 1-1 through 1-4) are assembled from interchangeable panels. There are two types of units: these are Type I and Type II. The Type I refrigerators are 600, 1200, 1800, 3000 and 4000 cubic feet units, while the Type II refrigerators are 400, 600, 800, 1200, 1400, and 1600 cubic feet units. The Type I and Type II refrigerators are of the same construction and differ only in width. The Type I units are three panel or 12 ft. 9 $\frac{5}{8}$ in. wide, while the Type II units are two panel or 8 ft. 11 $\frac{23}{32}$ in. wide. All panels with the exception of the roof and floor panels are interchangeable between the two type refrigerators. All prefabricated refrigerators are constructed in accordance with Military Specifica-

tion MIL-R-10932. The 600 cubic feet Type I unit and 400 and 600 cubic feet Type II units are single units while the units larger than 600 cubic feet are divided into compartments.

The Class 1 panels are constructed of a wooden frame with fiber glass insulation and are covered with sheet aluminum on both sides. The Class 2 panels are the same as Class 1 with exception that the exterior skin is steel and the interior skin is zinc coated, and not painted. The 1800J model refrigerators (Urethane) are constructed similar to the Type I Class 1 refrigerators with the addition of polyurethane foam in place of insulation.

b. *Type I, 600 Cubic Feet Unit.* The Type I, 600 cubic feet unit consists of one walk-in door panel with door, one conveyor panel with door,



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE

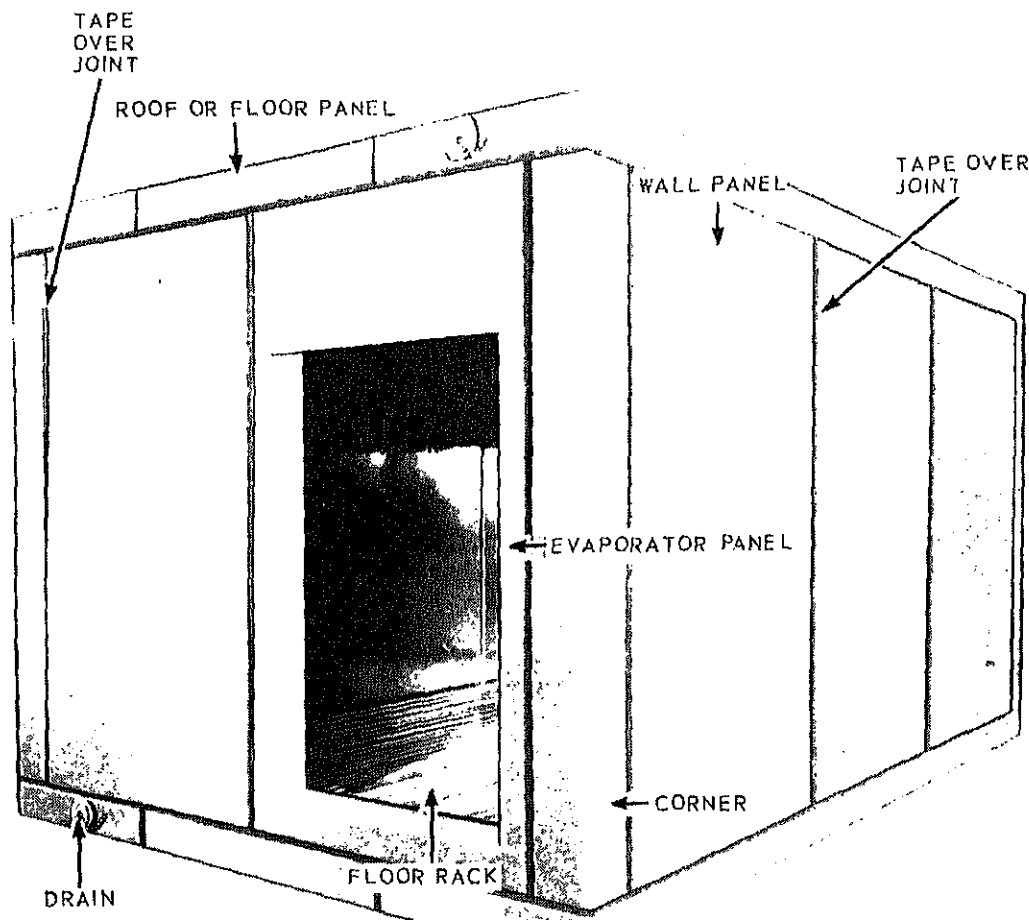
panels, three roof and three floor panels. The roof and floor panels are interchangeable throughout each type-size, and wall panels are interchangeable throughout all types and sizes. This refrigerator is equipped with three hardwood floor racks, four shelving units, a thermometer, outside power receptacle, inside light, an outside indicating light and two floor drains.

NOTE

The conveyor panel with door is optional equipment. When not required, this panel is replaced with an additional standard wall.

cubic feet unit is a single compartment refrigerator consisting of one walk-in door with ramp and canopy, one conveyor door, two evaporator panels, five roof panels, five floor panels and four corner panels. This unit is equipped with five hardwood floor racks, nine shelving units, a thermometer, outside power receptacle, inside light, outside indicating light and two floor drains.

d. Type I, 1800 Cubic Feet Unit. The Type I, 1800 cubic feet unit is a two compartment refrigerator consisting of two walk-in doors, with ramps, and canopies, two conveyor doors, two evaporator panels,



foot refrigerator is equipped with six hardwood floor racks, nine shelving units, two thermometers, two

Model refrigerator (Urethane) is supplied with hardwood floor racks and has no shelving unit

e. Type I, 3000 Cubic Feet Unit. The Type I, 3000 cubic feet unit is a three-compartment refrigerator consisting of three walk-in doors with ramps and canopies, three conveyor doors, three evaporator panels, eleven roof panels, eleven floor panels, four corner panels, and six partition panels. The 3000 cubic feet refrigerator contains eleven hardwood floor racks, twenty-one shelving units, three thermometers, three outside power receptacles, three inside lights and four floor drains.

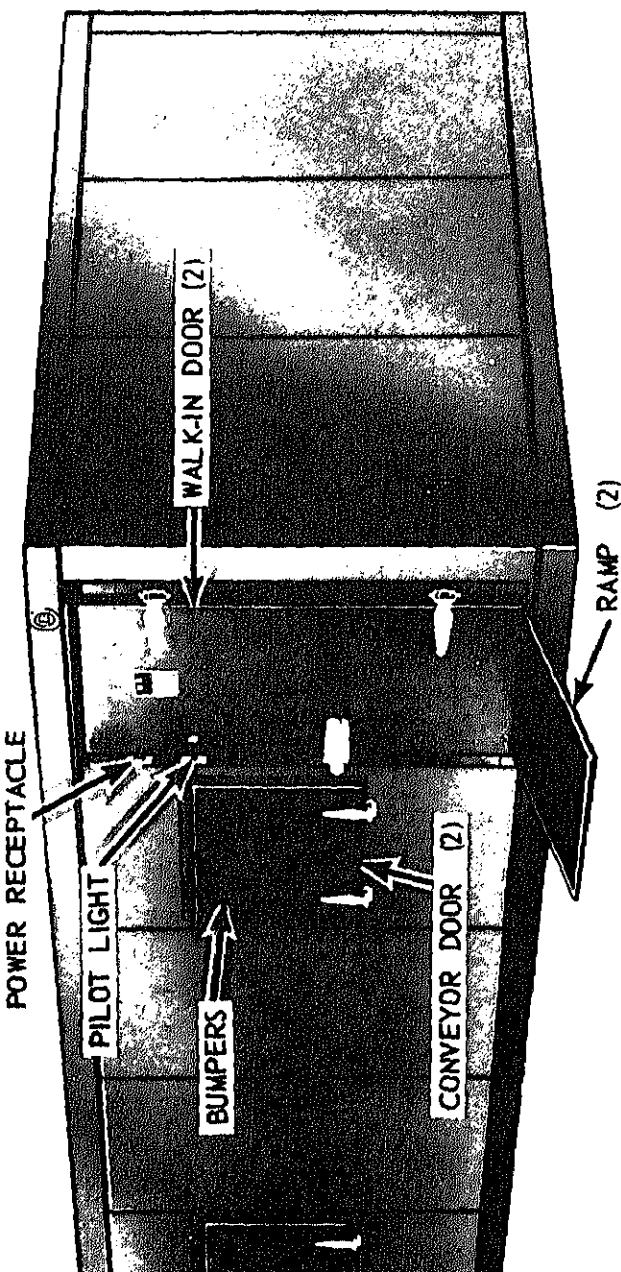
f. Type I, 4000 Cubic Feet Unit. The Type I, 4000 cubic feet unit is a four-compartment refrigerator consisting of four walk-in doors with ramps and canopies, four conveyor doors, four evaporator panels, fifteen roof panels, twenty-two wall panels and nine partition panels. The 4,000 cubic feet refrigerator is equipped with fifteen hardwood floor racks, thirty shelving units, four thermometers, four outside power receptacles, three inside lights and four floor drains.

g. Type II, 400 Cubic Feet Unit. The Type II, 400 cubic feet unit is a single-compartment refrigerator consisting of one walk-in door panel with door, one ramp and canopy, two evaporator panels, five standard wall panels, three floor panels, three ceiling

panels and four corner panels. The 400 cubic feet refrigerator is equipped with three hardwood floor racks, three shelving units, a thermometer, an outside power receptacle, an inside light, an indicating light, and a floor drain.

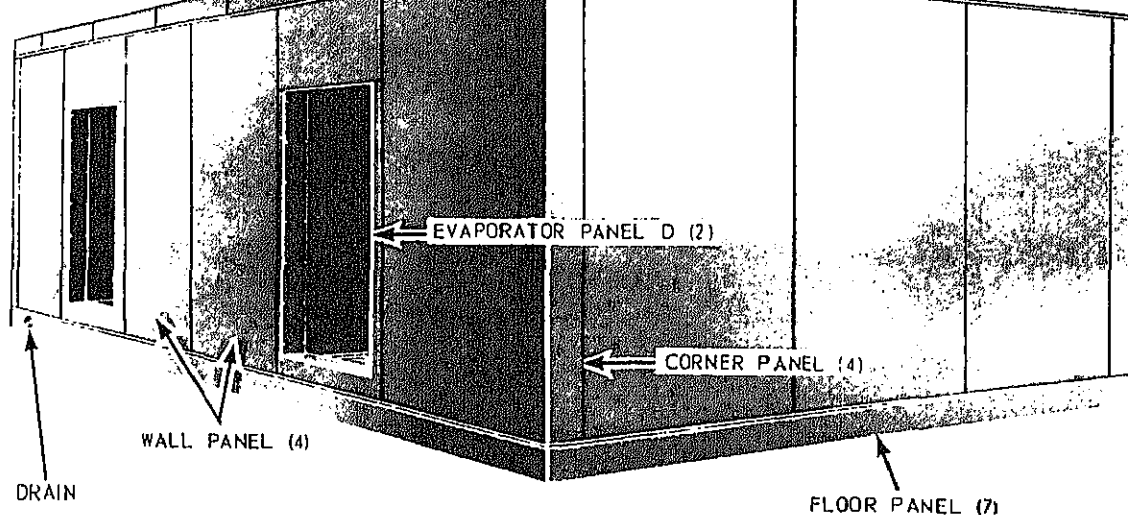
h. Type II, 600 Cubic Feet Unit. The Type II, 600 cubic feet unit is a single-compartment refrigerator consisting of one walk-in door panel with door, one ramp and canopy, two unit cooler panels, seven standard wall panels, four floor panels, four ceiling panels, and four corner panels. The 600 cubic feet refrigerator is equipped with four hardwood floor racks, four shelving units, a thermometer, outside power receptacle, inside light, an indicating light, and two floor drains.

i. Type II, 800 Cubic Feet Unit. The Type II, 800 cubic feet unit is a two-compartment refrigerator consisting of two walk-in door panels with doors, two ramps, two canopies, four unit cooler panels, six standard wall panels, five ceiling panels, five floor panels, four corner panels and two partition panels. This 800 cubic feet refrigerator is equipped with five hardwood floor racks, ten shelving units, two thermometers, two outside power recep-



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE.

Figure 1-3. Double compartment refrigerator, right front, three-quarter view.



NOTE: ROOF AND FLOOR PANELS ARE INTERCHANGEABLE.

MEC 4110-204-13/1-4

Figure 1-4. Double compartment refrigerator, left-rear, three-quarter view

tacles, two inside lights, two indicating lights and two floor drains.

j. Type II, 1200 Cubic Feet Unit. The Type II, 1200 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, eight standard wall panels, seven ceiling panels, seven floor panels, four corner panels and six partition panels. This 1200 cubic feet refrigerator is equipped with seven hardwood floor racks, nine shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

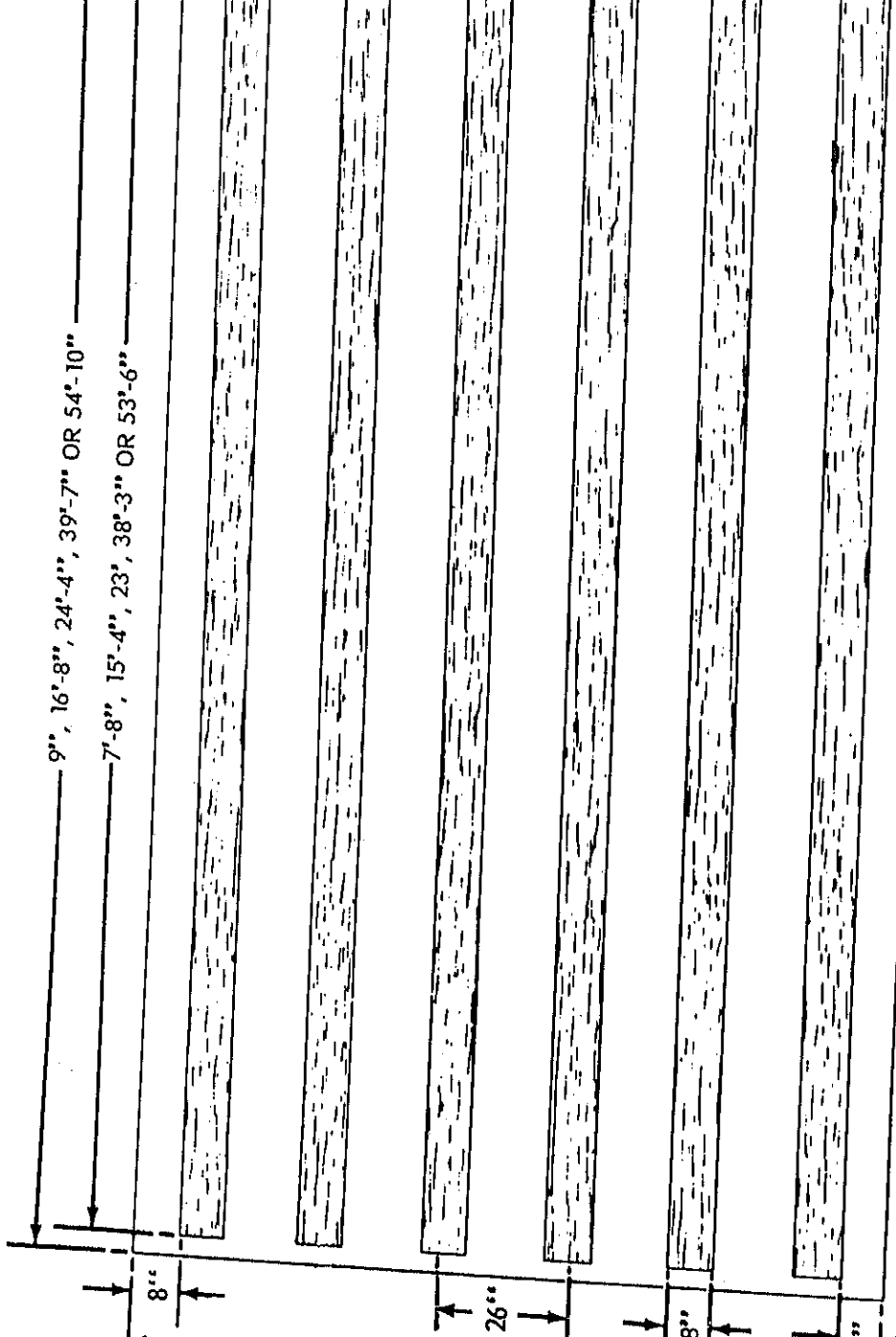
lc. Type II, 1400 Cubic Feet Unit. The Type II, 1400 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, ten standard wall panels,

cubic feet refrigerator is equipped with eight hardwood floor racks, ten shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

l. Type II, 1600 Cubic Feet Unit. The Type II, 1600 cubic feet unit is a three compartment refrigerator consisting of three walk-in door panels with doors, three ramps, three canopies, six unit cooler panels, eleven standard wall panels, nine ceiling panels, nine floor panels, four corner panels and four partition panels. This 1600 cubic feet refrigerator is equipped with nine hardwood floor racks, 12 shelving units, three thermometers, three outside power receptacles, three inside lights, three indicating lights and two floor drains.

1-4. Identification and Tabulated Data

a. Identification. An identification plate is



NOTE: REFER TO FIGURES 4-1 AND 4-2 FOR EACH INDIVIDUAL SIZE REFRIGERATOR TO BE ERECTED.

Figure 1-5. Base Plan, Type I refrigerators

9', 12'-10", 16'-7", 24'-4", 28'-1" OR 31'-11"

7'-8", 11'-6", 15'-3", 23', 26'-9" OR 30'-7"

NOTE: REFER TO FIGURES 4-1 AND 4-2 FOR EACH INDIVIDUAL SIZE REFRIGERATOR TO BE ERECTED.

Figure 1-6. Base plan, Type II refrigerators

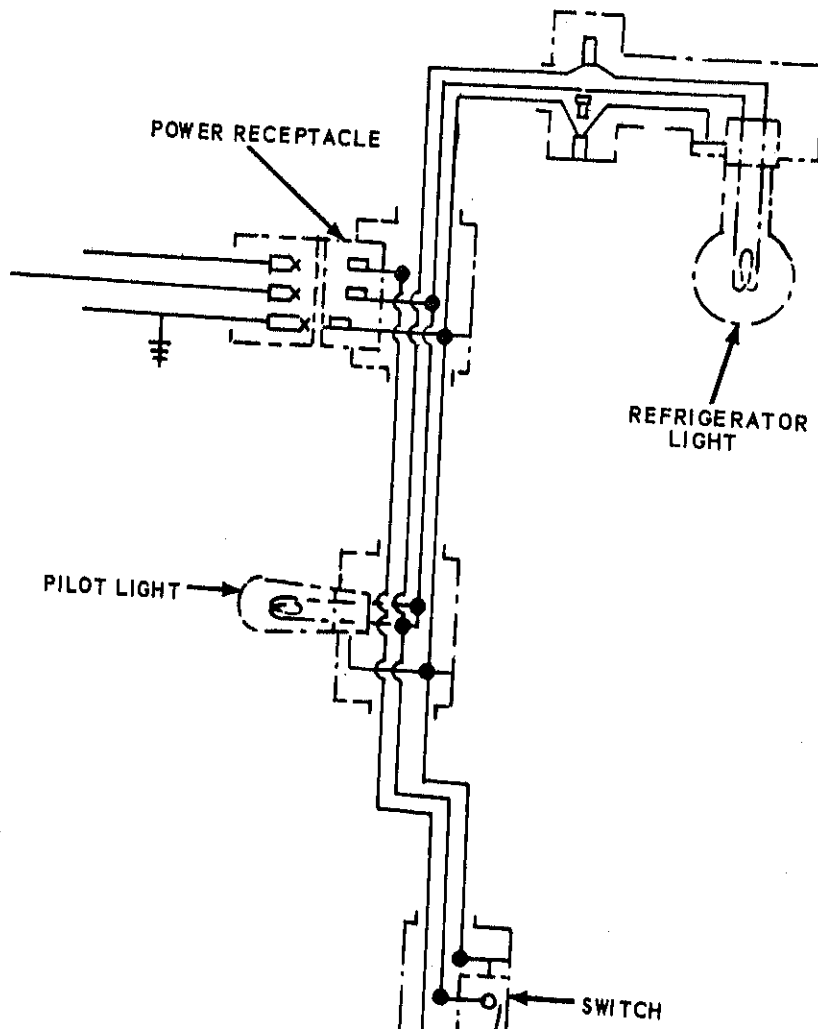
...specifies the nomenclature, manufacturer, class, model number and serial number.

b. Tabulated Data.

- (1) *General.* Due to the fact that this manual covers all sizes of the Type I and Type II refrigerators and that the prefabricated panels from which the units are assembled are manufactured

panels are interchangeable (and all made from the same drawings), the operational and organizational maintenance personnel will refer to the identification of the door of the unit for the desired.

- (2) *Base plan.* Refer to figure 1.



the base of the Type I refrigerators, and to figure 1-6 for the base plan for the Type II units.

NOTE

The cribbing used are 8 in. x 8 in. timbers for both the Type I and Type II refrigerators. The width of the base plans remain the same but the length will vary with refrigerator size as shown.

(3) *Wiring diagrams.* Refer to figure 1-7 for a practical wiring diagram.

1-5. Differences in Models

This manual covers the 600-cubic foot, 1200-cu. ft., 1800-cu. ft., 3000-cu. ft., and 4000-cu. ft., Type I, Class I and II refrigerators and the 400-cu. ft., 600-cu. ft., 800-cu. ft., 1200-cu. ft., 1400-cu. ft., and 1600-cu. ft., Type II, Class I refrigerators. The only unit differences are the various sizes as stated above and the design modifications incorporated in the 600-cu. ft., Type I units (FSN 4110-269-5096). In this type unit and the 1800J model (FSN 4110-287-3161), all panel gaskets are attached to the panels with staples, thereby eliminating the gasket retainers and retainer screws used in all other models covered by this manual.

CHAPTER 2 INSTALLATION AND OPERATING INSTRUCTIONS

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Unloading the Equipment

a. The crated panels and components of the prefabricated refrigerators may be shipped either by tractor-trailer or rail. The operator and organizational maintenance personnel will remove all tie-down cables, strapping, blocking, and the like, which secure the crated or skid-mounted components to the bed of the carrier. Refer to figure 2-1 and remove all tie-downs and blocking.

b. Use a suitable lifting device of sufficient capacity, and remove the crated or skid-mounted components from the bed of the carrier.

2-2. Unpacking the Refrigerator

Remove banding, crating, and blocking, being extremely careful not to damage the panels. If skid mounted, cut the strapping and remove cushioning and spacers. Unpack separately packed components from the container. Remove tape from drains, switches, and power receptacles.

2-3. Inspecting and Servicing Equipment

a. Inspecting.

(1) Make a complete visual inspection of all component parts of the prefabricated refrigerator for loss of parts or damage which may have occurred during shipment.

(2) Tighten all loose mounting hardware and replace damaged or missing parts. Inspect for a clogged drain strainer. Make certain all latches are in proper working condition.

(3) Before placing any panel in position, make certain all panel hooks rotate freely and are rotated fully counterclockwise. Remove all foreign material from panel fastener recesses and make sure hooks

b. Servicing.

(1) Perform the quarterly preventive maintenance services (para 3-7).

(2) Lubricate all latches and hinges (para 3-4).

(3) Wipe all moisture from doors and door gaskets.

2-4. Installation and Setting-Up Instructions

a. The refrigerator must be setup on a flat, level surface or platform capable of withstanding 250 pounds per square foot. It is desirable to pick a shaded area to increase the efficiency of the refrigerator.

b. The refrigerator may be set up inside or outside a shed or building.

c. Set up the refrigerator in the numerical sequence as illustrated in figure 2-2 commencing with a corner panel A. Assembly may commence in both directions, ending with a corner panel A. It may be necessary to remove a corner panel to facilitate installation of the last wall panel B.

d. Fasten the refrigerator panels together as instructed in figure 2-3.

2-5. Installation of Separately Packed Components

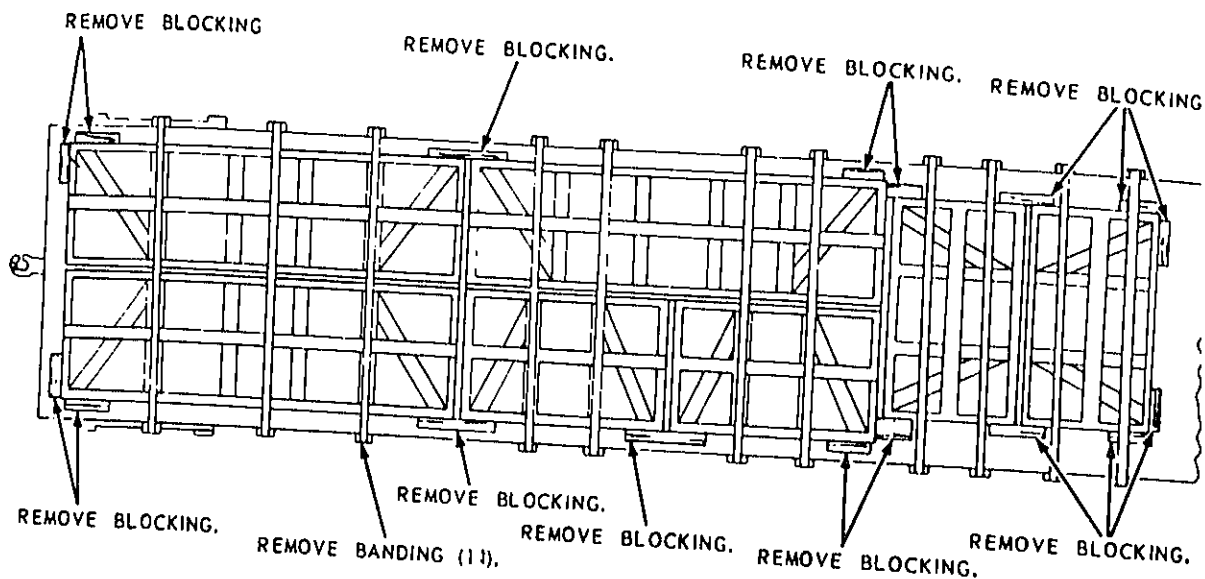
a. Install the ramp in its proper location shown in figure 2-2.

b. Install the floor racks in their proper position in the refrigerator.

c. Refer to figure 2-4 and install the light as instructed.

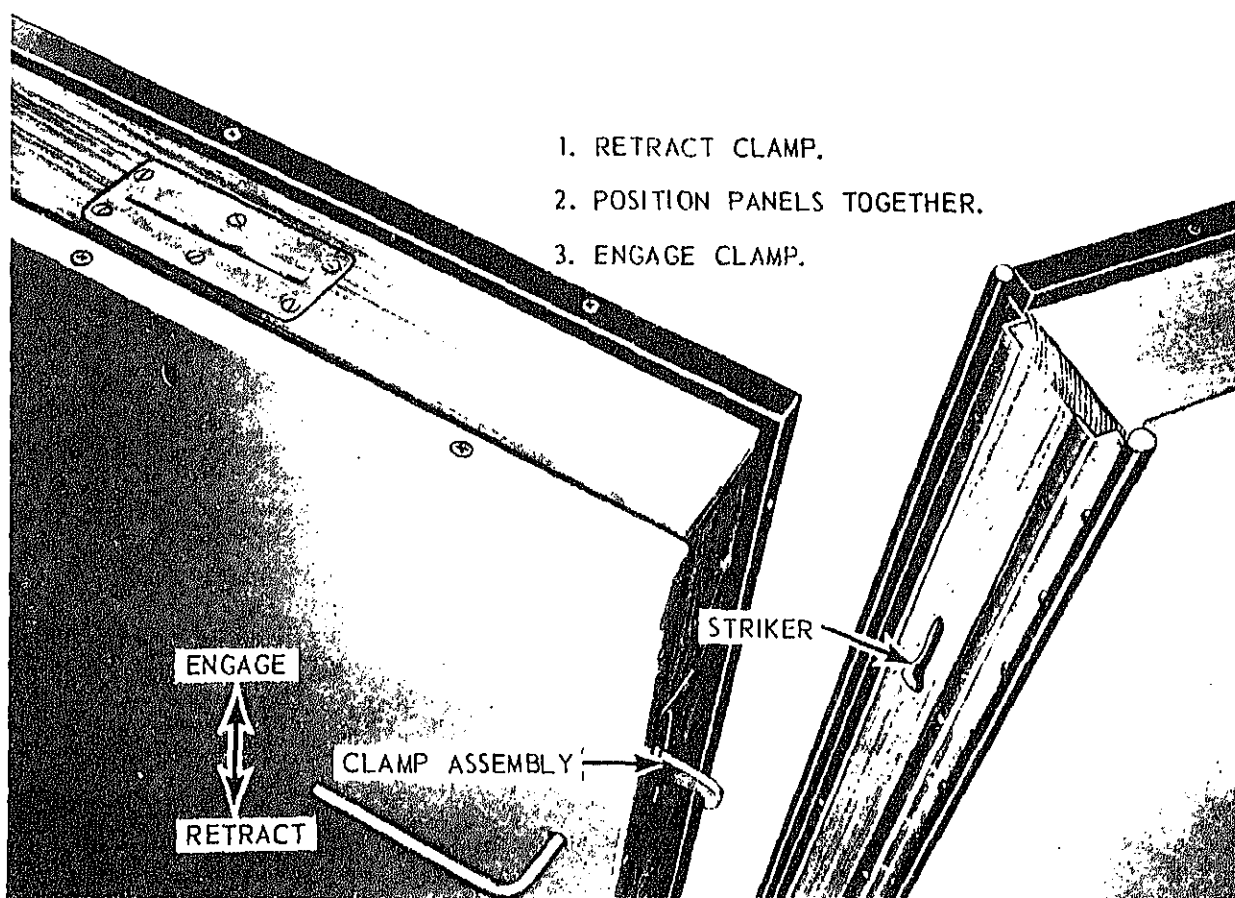
d. Refer to figure 2-4 and install the thermometer as instructed.

e. Install tape over panel joints in figure 1-2. Tape should be installed on roof joints first and then the



MEC 4110-204-13 2-1

Figure 2-1. Blocking and tie-downs.

- 
- The diagram illustrates the installation of refrigerator panels. It shows two panels being joined. A 'CLAMP ASSEMBLY' is shown being moved into position between the panels. A 'STRIKER' is shown on the edge of one panel. A vertical double-headed arrow indicates the 'ENGAGE' and 'RETRACT' movement of the clamp assembly. A list of three steps is provided: 1. RETRACT CLAMP, 2. POSITION PANELS TOGETHER, 3. ENGAGE CLAMP. Two notes at the bottom provide additional instructions: 'NOTE: CONNECT THE REMAINING PANELS IN THE SAME MANNER.' and 'NOTE: INSTALL METAL PLUG IN CLAMP ASSEMBLY HOLE.' The part number 'MSC 4110-204-15/6' is in the bottom right corner.
1. RETRACT CLAMP.
 2. POSITION PANELS TOGETHER.
 3. ENGAGE CLAMP.

ENGAGE

RETRACT

CLAMP ASSEMBLY

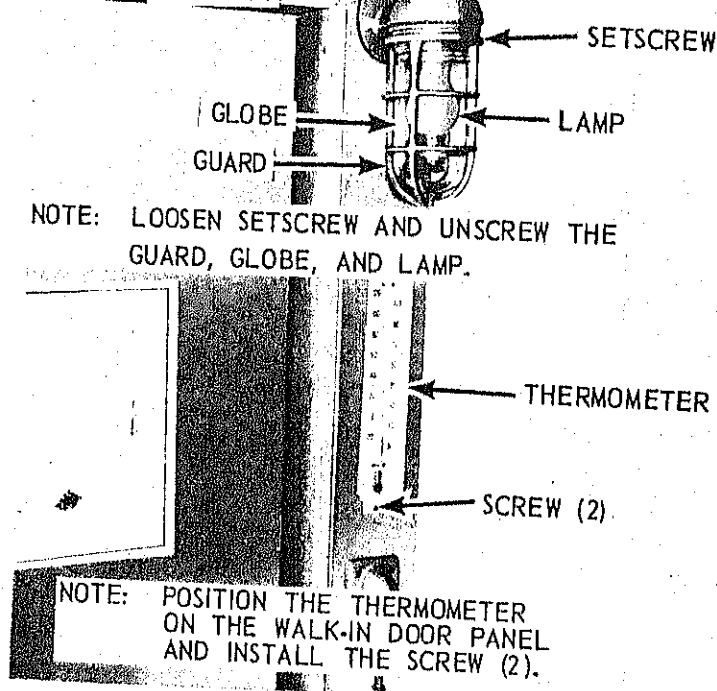
STRIKER

NOTE: CONNECT THE REMAINING PANELS IN THE SAME MANNER.

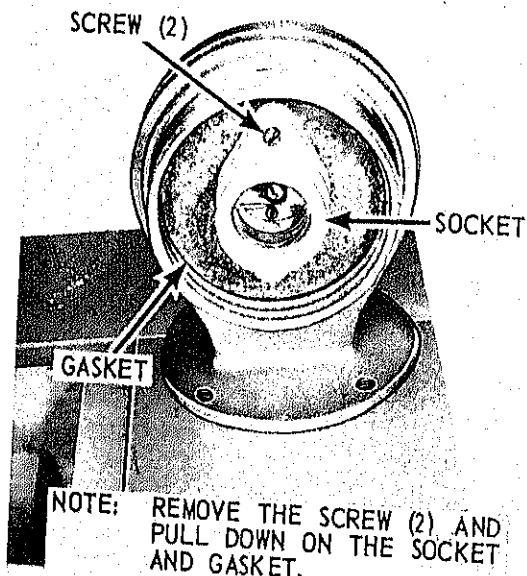
NOTE: INSTALL METAL PLUG IN CLAMP ASSEMBLY HOLE.

MSC 4110-204-15/6

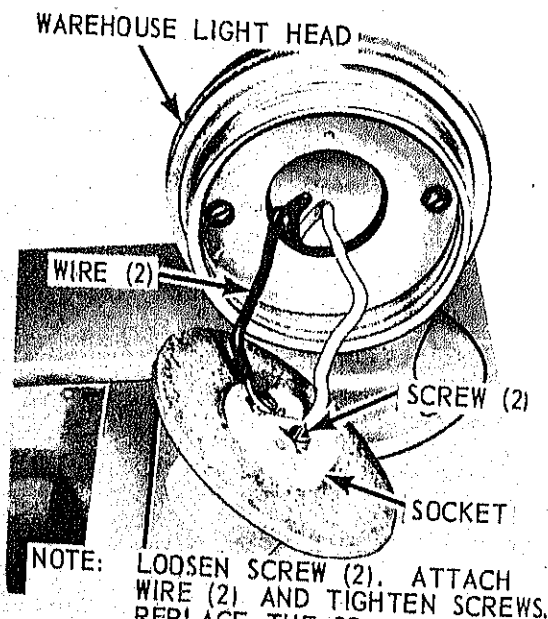
Figure 2-3. Refrigerator panels, installation



A. LIGHT ASSEMBLY AND THERMOMETER



B. LAMP SOCKET



2-6. Dismantling for Movement

- a. Disconnect the external power supply cable.

NOTE

Remove tape from all joints before disassembly of panels.

- b. Refer to figure 2-4 and remove the light assembly in the reverse order of installation.
- c. Refer to figure 2-4 and remove the thermometer in the reverse order of installation.
- d. Refer to figure 2-3 and disconnect the refrigerator panels in the reverse order as shown.
- e. Refer to figure 2-2 and disassemble the refrigerator in the reverse order of assembly.
- f. Crate the components in the original shipping

crates, if available. For short distance, or if original shipping crates are not available, place the components in easily handled loads on skids. Place cushioning material and wooden spacers between surfaces that are easily damaged. Secure the skids with metal banding. Cushion the thermometers with cellulose wadding or other cushioning material. Pack the cushioned items with basic issue items in a suitable fiberboard container.

- g. Refer to paragraph 2-1 and load and secure the refrigerator crates to the bed of the carrier.

2-7. Reinstallation After Movement

Refer to paragraph 2-1 and reinstall the prefabricated refrigerator as instructed.

Section III. CONTROLS AND INSTRUMENTS

2-8. General

This section describes, locates, illustrates, and furnishes the operator, crew, or organizational maintenance personnel sufficient information about the various controls and instruments for proper operation of the prefabricated refrigerator.

2-9. Controls and Instruments

The purpose of the controls and instruments and the normal and maximum reading of the instruments are illustrated in figure 2-5.

Section IV. OPERATION OF EQUIPMENT

2-10. General

The instructions in this section are published for the information and guidance of the personnel responsible for the operation of the prefabricated refrigerator warehouse.

2-11. Operation Under Usual Conditions

- a. After the refrigerator is assembled and the refrigeration unit has been connected, the refrigerator

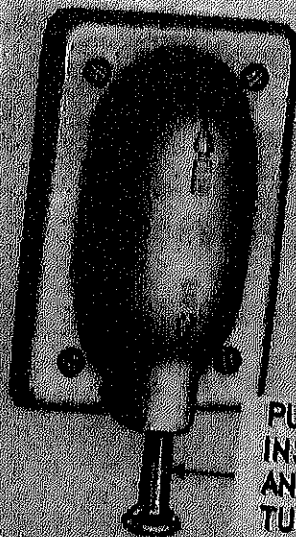
2-12. Operation Under Rainy or Humid Conditions

If the unit is installed outside, protect the hinges and latches by coating them with a waterproof substance, such as grease or heavy oil to prevent rust or corrosion. Use canvas or other water proof material to protect the unit as much as possible in order to



THERMOMETER INDICATES TEMPERATURE IN DEGREES FAHRENHEIT.

A. THERMOMETER



PULLED TO TURN
INSIDE LIGHT ON
AND PUSHED TO
TURN INSIDE LIGHT
OFF

B. LIGHT SWITCH



PILOT LIGHT GLOWS TO
INDICATE THAT LIGHT
INSIDE REFRIGERATOR IS ON.

CHAPTER 3

OPERATOR AND ORGANIZATIONAL MAINTENANCE INSTRUCTIONS

Section I. OPERATOR AND ORGANIZATIONAL MAINTENANCE TOOLS AND EQUIPMENT

3-1. Special Tools and Equipment

No special tools or equipment are required by the operator or organizational maintenance personnel for the maintenance of the prefabricated refrigerator warehouse.

3-2. Basic Issue Tools and Equipment

Tools and repair parts issued with or auth-

orized for the prefabricated refrigerator are listed in the basic issue items list, Appendix B of this manual.

3-3. Organizational Maintenance Repair Parts

Organizational maintenance repair parts are listed and illustrated in Appendix D.

Section II. LUBRICATION AND PREVENTIVE MAINTENANCE SERVICES

3-4. Lubrication

The prefabricated refrigerator requires lubrication of the door hinges and latch only. Clean the hinges and latch with an approved cleaning solvent and apply a lightweight oil sparingly as required.

3-5. Preventive Maintenance Services, General

To insure that the prefabricated refrigerator is ready for operation at all times, it must be inspected systematically, so that defects may be discovered and corrected before they result in serious damage or failure. The necessary preventive maintenance services to be performed are listed consecutively and are described in paragraphs 3-6 and 3-7. The item numbers indicate the sequence of minimum inspection requirements. Defects discovered during operation of the unit shall be noted for future correction, to be made as soon as operation has ceased. Stop operation immediately if a deficiency is noted during operation which would

3-6. Daily Preventive Maintenance Services

This paragraph contains an illustrated tabulated listing of preventive maintenance services which must be performed by the operator or crew. The item numbers are listed consecutively and indicate the sequence of minimum requirements. Refer to figure 3-1 for the daily preventive maintenance services.

3-7. Quarterly Preventive Maintenance Services

a. This paragraph contains an illustrated tabulated listing of preventive maintenance services which must be performed by organizational maintenance personnel at quarterly intervals. A quarterly interval is equal to 3 calendar months or 250 hours of operation, whichever occurs first.

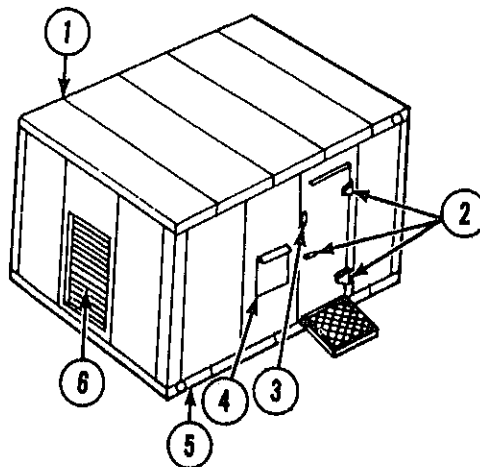
b. The item numbers are listed consecutively and indicate the sequence of minimum requirements. Refer to figure 3-2 for the quarterly preventive maintenance services.

DAILY

TM 5-4110-204-13

PANEL TYPE

REFRIGERATOR,
PREFABRICATED



ITEM

PAR REF

1	<u>REFRIGERATOR.</u> Inspect panels for serviceability and secure mounting.	
2	<u>DOOR HANDLES, LATCHES, AND HINGES.</u> Inspect for cracks, breaks, excessive wear, loose or missing hardware.	3-22
3	<u>PILOT LIGHT LAMP.</u> Check for proper operation and damage.	2-9
4	<u>CONVEYOR DOOR.</u> Inspect for cracks, breaks, deterioration of weather stripping and all other damage. Clean with an approved cleaning solvent and allow to dry thoroughly.	3-23
5	<u>FLOOR DRAIN.</u> Inspect for cracks, breaks, and damaged threads. Clean with an approved cleaning solvent.	3-32
6	<u>RACKS.</u> Inspect for visual signs of wear and damage. Clean with an approved cleaning solvent and dry thoroughly.	

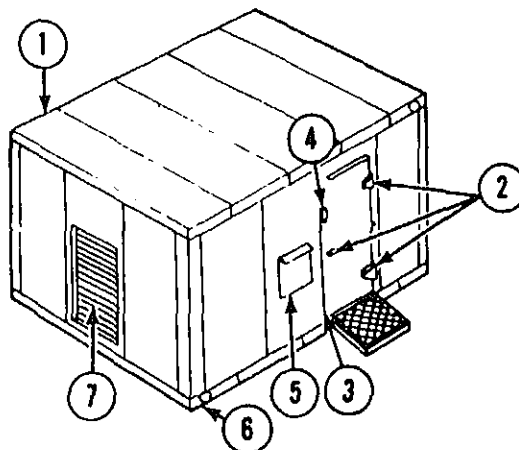
PREVENTIVE MAINTENANCE SERVICES

QUARTERLY

TM 5-4110-204-13

PANEL TYPE

REFRIGERATOR,
PREFABRICATED



ITEM		PAR REF
1	<u>REFRIGERATOR.</u> Inspect panels for serviceable condition and replace if necessary.	
2	<u>DOOR HANDLES, LATCHES AND HINGES.</u> Inspect for cracks, breaks, excessive wear, loose or missing hardware. Replace as necessary. Polish door handle. Oil hinges with OE periodically.	3-22
3	<u>POWER RECEPTACLE.</u> Inspect receptacle and cover for cracks and breaks. Replace as necessary. Clean all parts with an approved solvent and dry thoroughly.	3-17
4	<u>PILOT LIGHT LAMP.</u> Inspect for proper operation and damage. Replace as necessary. Clean cover and lens with an approved solvent and dry thoroughly.	3-18
5	<u>CONVEYOR DOOR.</u> Inspect door for cracks, breaks, weather stripping and a defective seal. Replace as necessary.	3-23

7

RACKS. Inspect visually for serviceability. Replace as necessary.

3-9. Refrigerator Light Lamp

a. *Removal.* Refer to figure 3-3 and remove the refrigerator light lamp.

b. *Installation.* Refer to figure 3-3 and install the refrigerator light lamp.

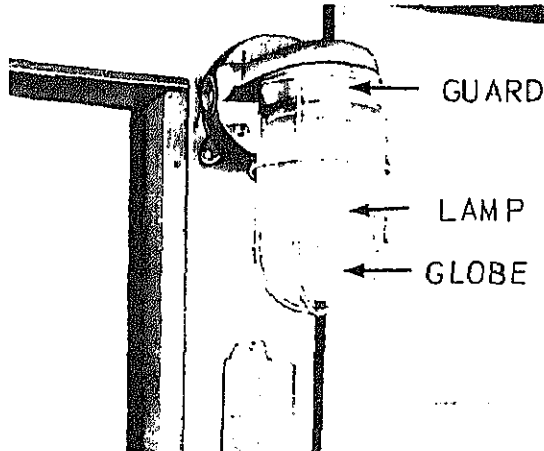
3-10. Pilot Light Lamp

a. *Removal.* Refer to figure 3-4 and remove the pilot light lamp.

b. *Installation.* Refer to figure 3-4 and install the pilot light lamp.

3-11. General

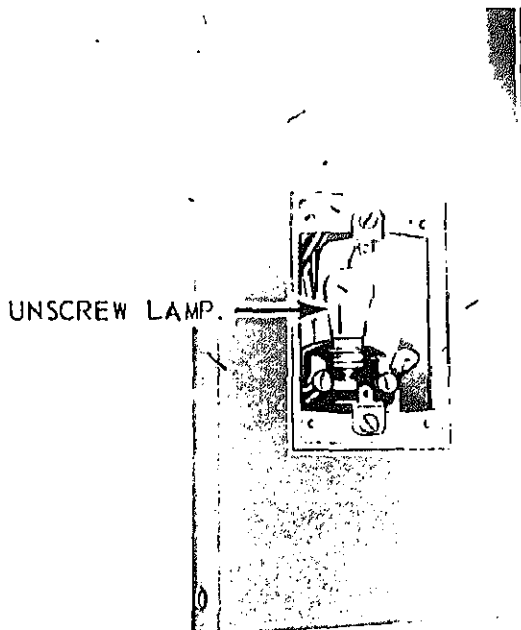
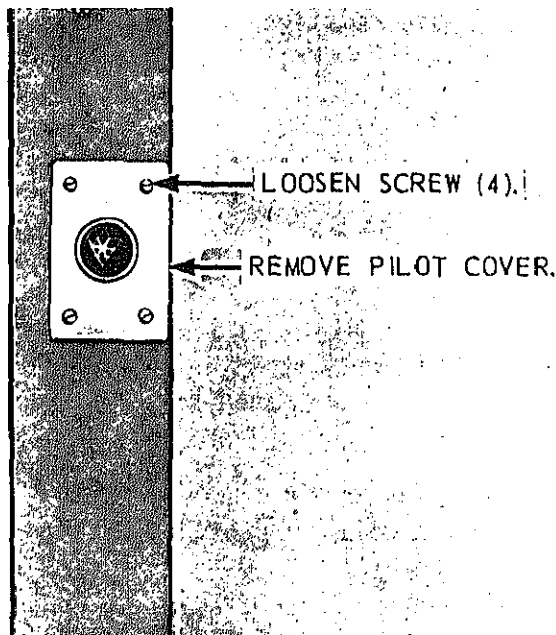
This section provides information useful in diagnosing and correcting unsatisfactory operation or failure of the refrigerator and its components. Each trouble symptom stated is followed by a list of probable causes of the trouble. The possible remedy recommended is described opposite the probable cause.



NOTE: REMOVE SETSCREW FROM GUARD AND REMOVE GUARD, GLOBE AND LAMP.

MEC 4110-204-13/3-3

Figure 3-3. Refrigerator light lamp, removal and installation



3-12. Lights Inoperative

Probable cause	Possible remedy
Defective switch	Replace switch (para. 3-19).
Loose wiring connections	Tighten wiring connections and repair wiring.
Defective receptacle . . .	Replace receptacle (para. 3-18).
External power supply -	Connect power supply.

3-13. Drains Inoperative

Probable cause	Possible remedy
Clogged drain	Clean drain strainer.
Cap on drain outlet	Remove cap from outlet.
Drain pipe clogged	Remove strainer and clean drain pipe (para. 3-32).

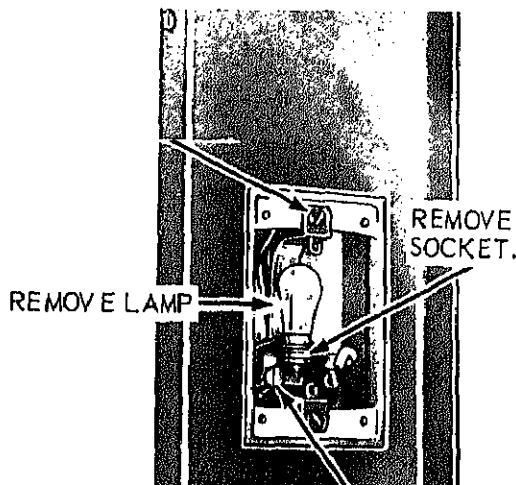
3-14. Refrigerator Does Not Retain Proper Cooling Temperature

Probable cause	Possible remedy
Door striker plate not properly adjusted	Adjust striker latch (3-22).
Door gasket worn or missing	Replace gasket (para. 3-28).
Door defective	Replace door (para. 3-29).
Outside or inside skin damaged	Repair or replace panel (para. 3-30).

Section V. ELECTRICAL COMPONENTS

3-15. General

The electrical components of refrigerator are the inside light, pilot light, light switch, and plug receptacle with the necessary wiring to complete the circuit.



3-16. Refrigerator Light Assembly

a. *Removal.* Refer to figure 2-4 and remove the refrigerator light assembly.

b. *Installation.* Refer to figure 2-4 and install the refrigerator light assembly.

3-17. Pilot Light

a. *Removal.*

- (1) Refer to paragraph 3-10 and remove the pilot light cover.
- (2) Refer to figure 3-5 and remove the pilot light socket.

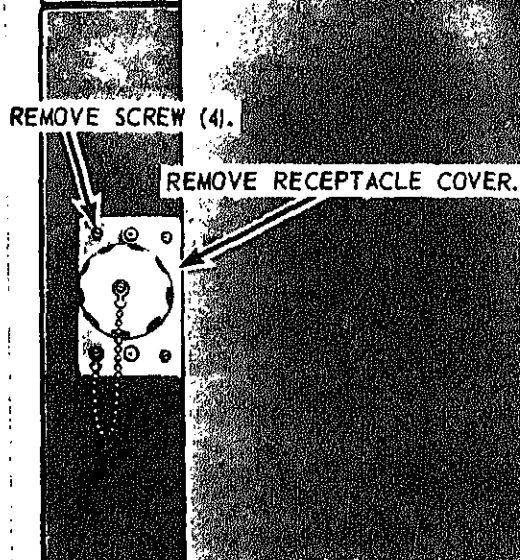
b. *Installation.*

- (1) Refer to figure 3-5 and install the pilot light socket.
- (2) Refer to paragraph 3-10 and install the pilot light cover.

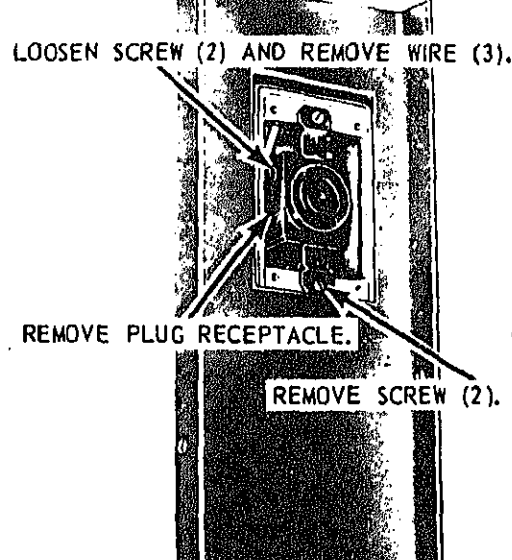
3-18. Plug Receptacle

a. *Removal.* Refer to figure 3-6 and remove the plug receptacle.

b. *Installation.* Refer to figure 3-6 and install the plug receptacle.



A. COVER



B. RECEPTACLE

ME 4110-204-13/3-6 C2

Figure 3-6. Plug receptacle, removal and installation.

Section VI. REFRIGERATOR COMPONENTS

3-20. General

This section provides organizational maintenance personnel with instruction necessary for maintenance of the refrigerator components which consists of walk-in door panels, conveyor door panels, wall panels, corner panels, floor and roof panels, hardwood floor racks, and the necessary hardware to complete the refrigerator.

3-21. Walk-In Door

a. Removal. Refer to figure 3-8, and remove the walk-in door.

b. Installation. Refer to figure 3-8 and install the walk-in door.

b. Installation. Refer to figure 3-9, and install the walk-in door handles and latch.

c. Adjustment. Refer to figure 3-9, and adjust the striker latch to provide an airtight fit when the door is closed.

3-23. Conveyor Door

a. Removal. Refer to figure 3-8, and remove the conveyor door.

b. Installation. Refer to figure 3-8, and install the conveyor door.

3-24. Conveyor Door Latch and Handle

The 1800J model refrigerator conveyor door latch is identical to the walk-in door latch.

a. Removal.

(1) Refer to figure 3-10, and remove the

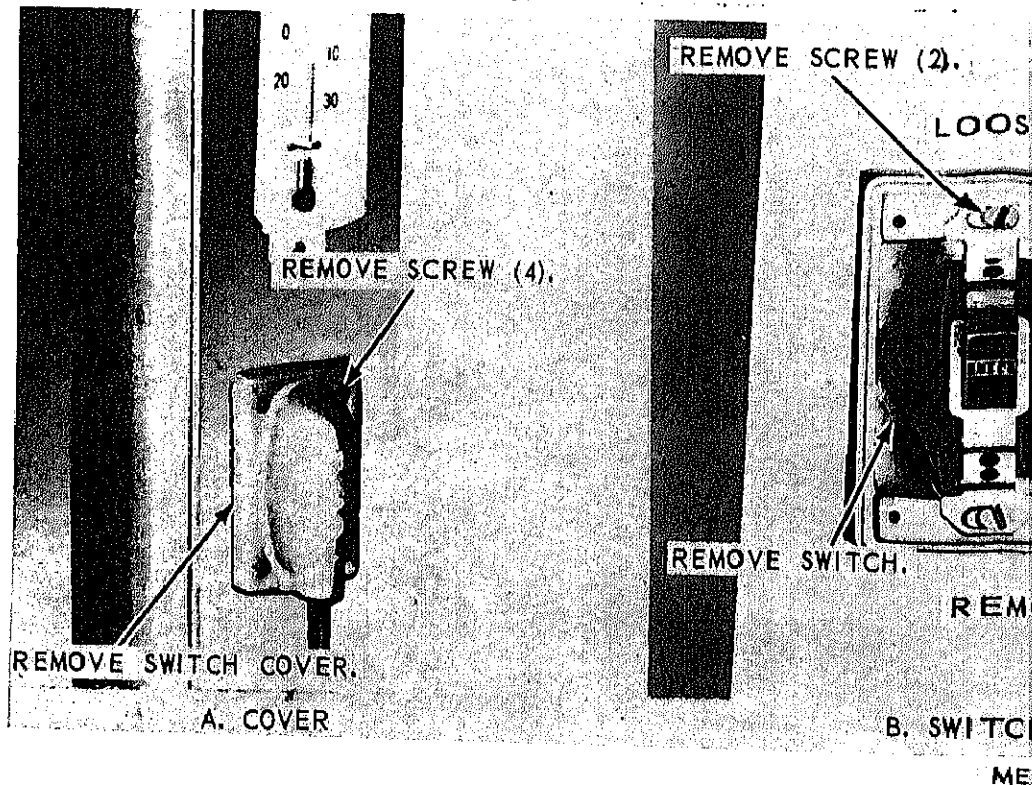


Figure 3-7. Light switch, removal and installation.

b. Installation.

(1) Refer to figure 3-11, and install the conveyor door latch.

(2) Refer to figure 3-10, and install the conveyor door handle.

3-25. Conveyor Door Roller

The 1800J model refrigerator does not have a conveyor door roller.

a. Removal. Refer to figure 3-10, and remove the conveyor door roller.

b. Installation. Refer to figure 3-10, and install the conveyor door rollers.

3-26. Conveyor Door Curtain

a. Removal. Refer to figure 3-10, and remove the

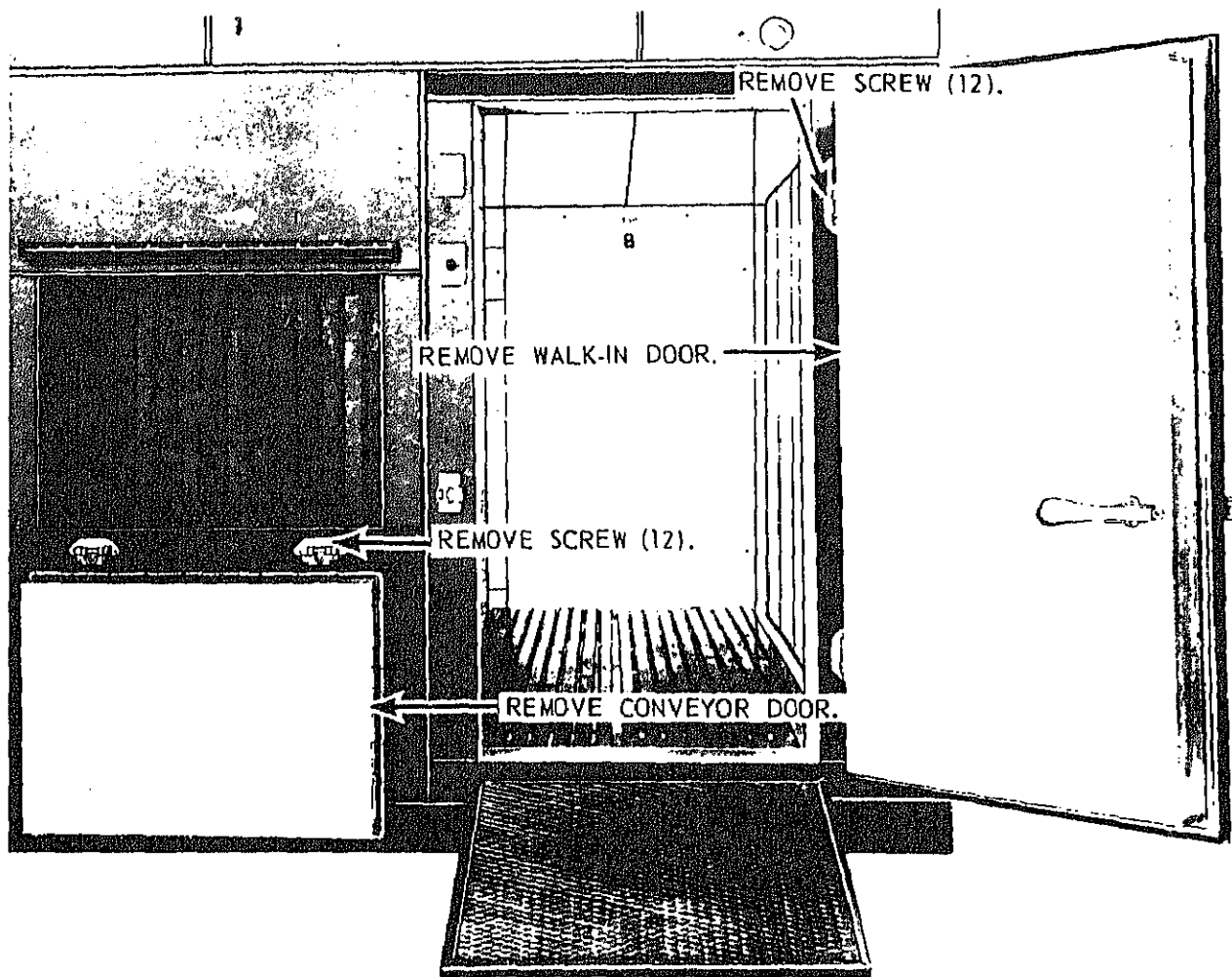
a. Removal. Refer to figure 3-10, and move the conveyor door canopy.

b. Installation. Refer to figure 3-10, and install the conveyor door canopy.

NOTE

On the 600-cu. ft., Type I unit (FSN 4110-269-5096) and the 1800-cu. ft. (FSN 4110-287-3161), all gaskets are attached with staples. To remove gaskets, pry out staples with a common screwdriver. At the top of the gasket, install staples (0.63 x 1/2 in.) spaced 2 1/2 inches apart.

NOTE: OPEN THE DOOR AND USE SUITABLE
BLOCKING BEFORE REMOVING DOORS.



NOTE: REMOVE ALL REMAINING WALK-IN DOORS OR CONVEYOR
DOORS IN THE SAME MANNER.

ME 4110-204-13/3-8 '75

Figure 3-8. Walk-in and conveyor doors, removal and installation.

3-29. Panel Clamp Assemblies

a. Removal. Refer to figure 3-13, and remove the panel clamp assemblies.

b. Repair. When the skin of the panels is cracked, torn, or punctured, thereby exposing the insulation, the refrigerator will not cool properly and must be

(e) Apply tape over the entire patch area and the panel is ready for use.

(f) For damaged areas up to 144 sq. in., follow above steps for use of repair kit, but apply epoxy to cloth, nylon, or like type material which has been cut to 2 to 3 inches greater in each direction of the hole to be covered.

(g) Affix the patch over the damaged area.

(h) Tape the patch in vertical and horizontal directions so that the patch will not move while curing. It will take approximately 2 hours for the patch to adhere properly.

(2) Major Repairs.

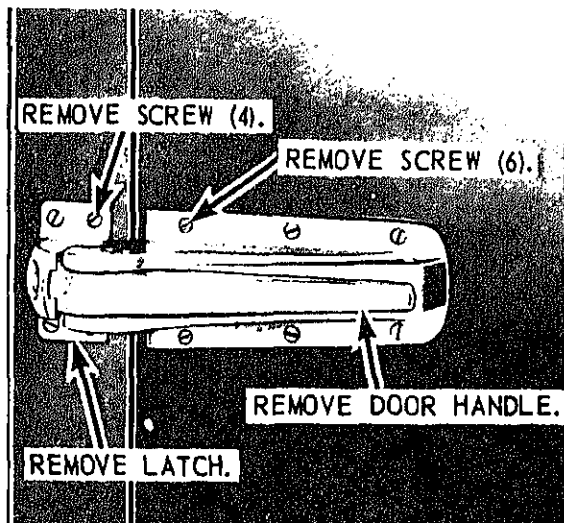
(a) Obtain a metal plate large enough to cover the damaged area.

(b) Apply a watertight sealer between the metal plate and the surface of the panel to be repaired.

(c) Press plate tightly against the panel, and secure it with sheet metal screws.

NOTE

If the fiberglass insulation should become saturated with moisture due to leakage of the panel, the panel should be removed and the moisture baked out of it. If the



The 1800J model refrigerator polyurethane insulation.

c. *Installation.* Refer to paragraph 2-4, at the refrigerator panels.

3-31. Thermometer

a. *Removal.* Refer to paragraph 2-5, and the thermometer from the door panel.

b. *Installation.* Refer to paragraph 2-5 at the thermometer on the door panel.

3-32. Drain Strainer

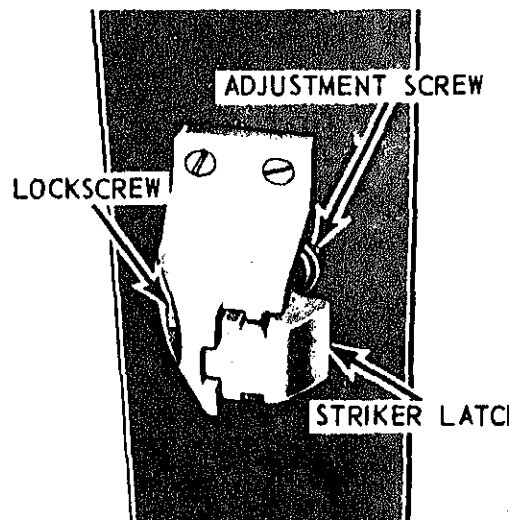
a. *Removal.* Refer to figure 3-14, and rer drain strainer.

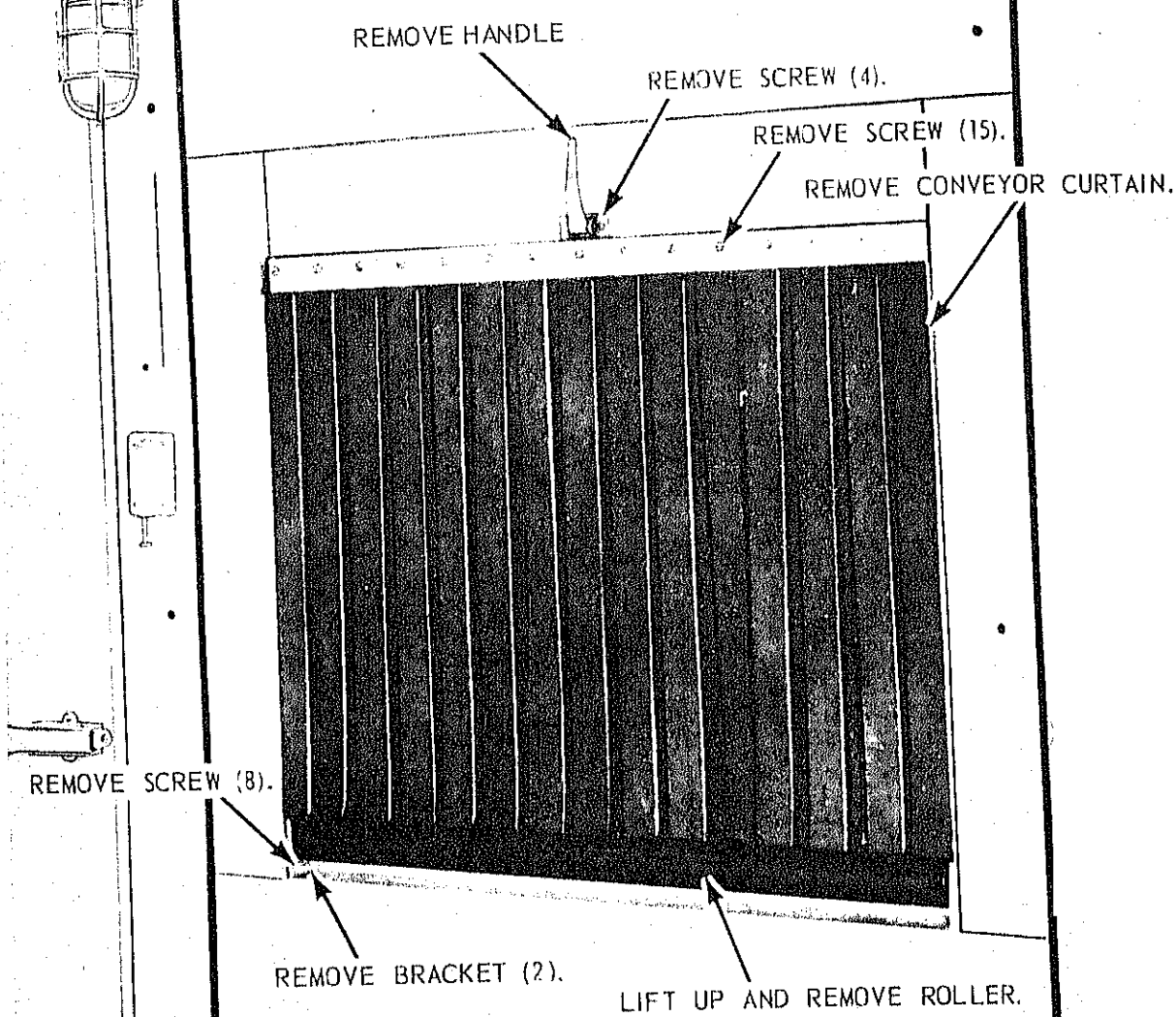
b. *Installation.* Refer to figure 3-14, and ir drain strainer.

3-33. Slide Bolts

a. *Removal.* Remove the four screws thz the slide bolts to the partition panels, and rer slide bolts.

b. *Installation.* Position the slide bolts partition panels, and secure them with four ing screws.





NOTE: REMOVE THE REMAINING CONVEYOR DOOR COMPONENTS IN A SIMILAR MANNER.

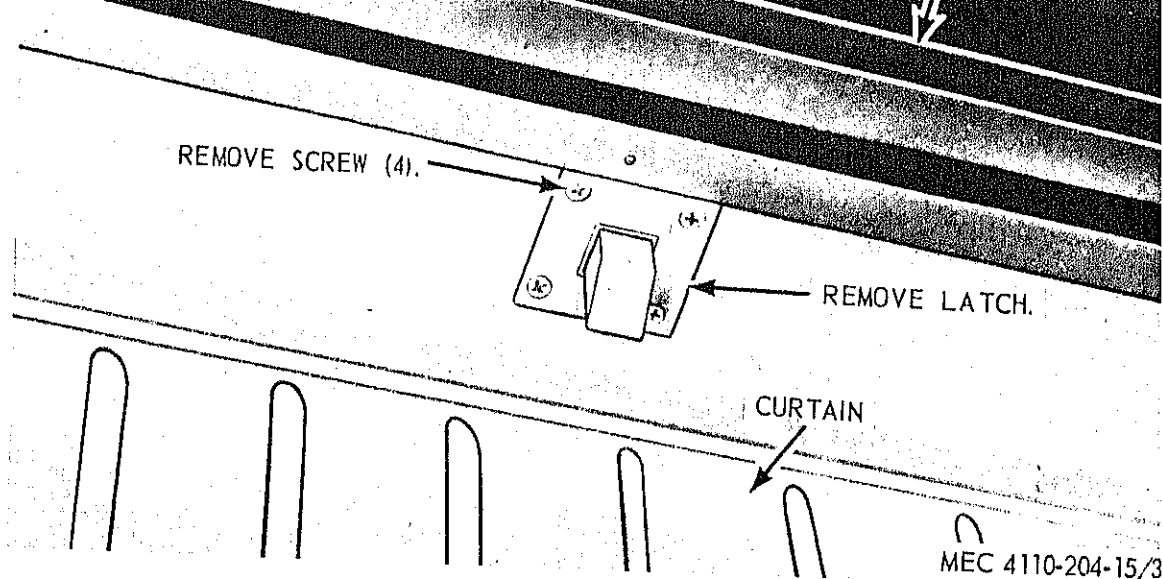
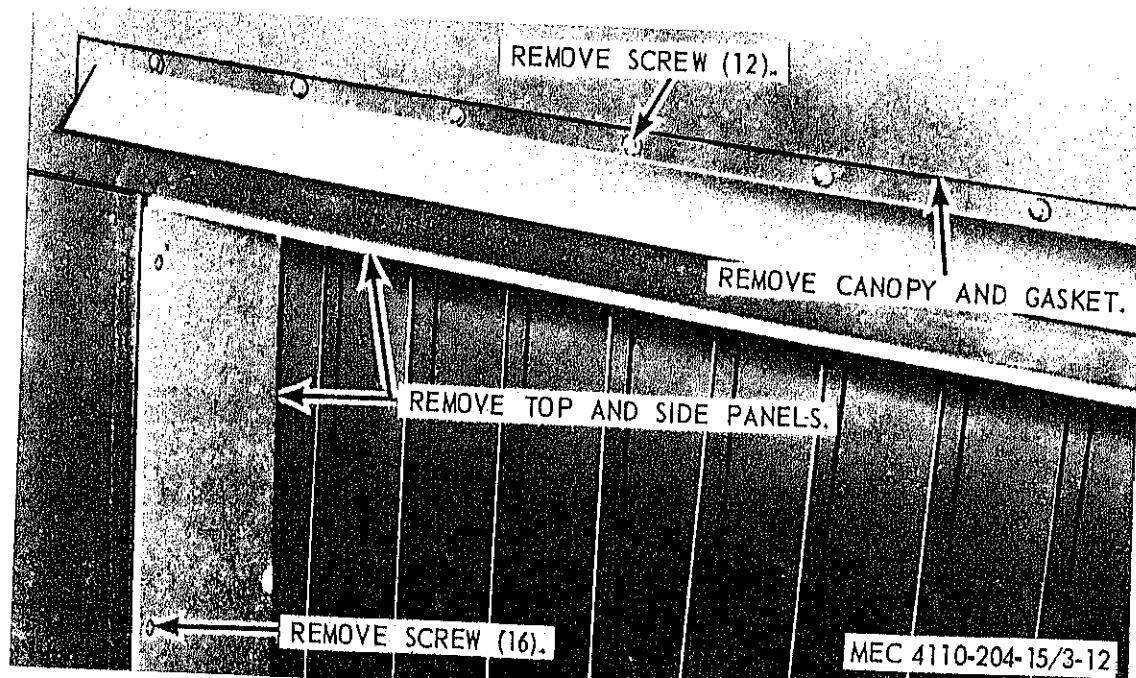


Figure 3-11. Conveyor door latch, removal and installation



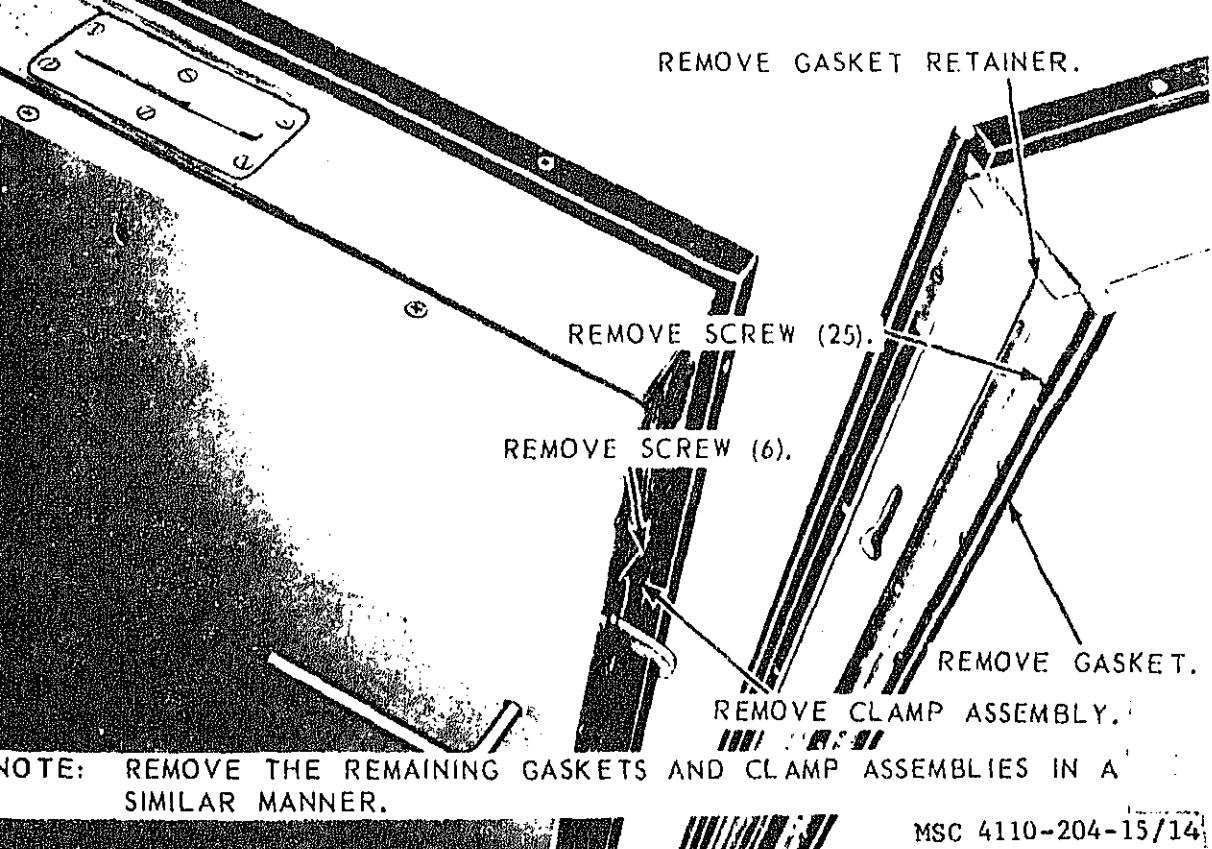
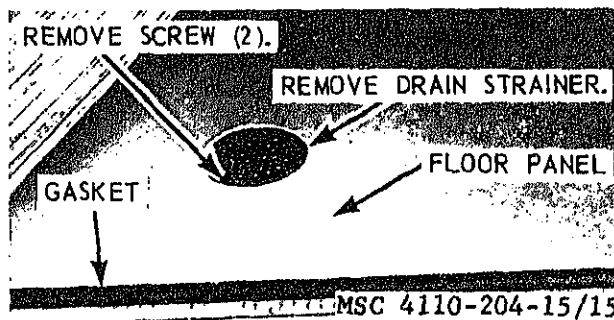


Figure 3-13. Refrigerator panel and door seals, and clamp assemblies, removal and installation



CHAPTER 4

DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

Section I. GENERAL

1. Scope

These instructions are published for the use of direct support maintenance personnel maintaining the panel type prefabricated refrigerator. They provide information on the maintenance of the equipment, which is beyond the scope of the tools, equipment, personnel, or supplies normally available to using organizations.

b. Report all equipment improvements recommendations as prescribed by TM 38-750.

4-2. Record and Report Forms

For record and report forms applicable to direct support maintenance, refer to TM 38-750.

Note. Applicable forms, excluding Standard Form 46 which is carried by the operator, shall be kept in a canvas bag mounted on the equipment.

Section II. DESCRIPTION AND TABULATED DATA

1. Description

a complete description of the prefabricated refrigerator see paragraph 1-3.

2. Tabulated Data

General. This paragraph contains the time standards and list of components necessary for construction of the various size refrigerators. Refer to paragraph 1-4 for general tabulated data.

Time Standards. Table 4-1 lists the number of man-hours required under normal conditions for various operations in the maintenance and repair of the prefabricated refrigerators. The man-hours listed are not intended to be rigid standards. Under adverse conditions, the operation will take considerable longer; but under ideal conditions with highly skilled mechanics, most of the operations can be accomplished in considerably less time.

600 cu ft Unit	8.0
1200 cu ft Unit	16.0
1800 cu ft Unit	24.0
3000 cu ft Unit	40.0
4000 cu ft Unit	51.4
Type II, Class I:	
400 cu ft Unit	5.3
600 cu ft Unit	8.0
800 cu ft Unit	10.6
1200 cu ft Unit	16.0
1400 cu ft Unit	18.6
1600 cu ft Unit	21.2
Floor rack assembly (each)	0.7
Panel assembly (each)	2.1
Roller	0.2
Gasket	1.5
(Includes removal and installation of strip)	
Curtain, conveyor door	0.6
(Includes removal and installation of strips)	
Partition assembly	2.5
Clamp and striker assembly	3.4
Barrel bolt assemblies	0.8
Door panels	3.2

Table 4-1. Time Standards

Removal and Replacement

Hours

Lamp	0.3
(Includes removal and installation of guard and cover).	
Cover	0.2
(Includes removal and installation of guard).	
Gasket	0.4
(Includes removal and installation of guard, cover and fittings).	
Power receptacle assembly	0.4
(Includes removal and installation of guard, cover gasket and wiring).	
Cover and gasket	0.2
(Includes removal and installation of guard).	
Guard, power receptacle	0.2
(Includes removal and installation of chain).	
Thermometer	0.2
Strainer assembly	1.8
(Includes removal and installation of plug).	

Canopy
(Includes removal and installation of panels).
Ramp

c. Refrigerator Component Data. Tab and 4-3 list the type and number of and other components necessary for co tion of all sizes of the Type I and T Class I refrigerators. Refer to figures 4 4-2 for nomenclature identifier callouts in the tables.

NOTE

The ramp and conveyor panel with door are optional. When not required the conveyor panel with door is replaced by a standard wall panel. The 1800J Model Refrigerator is similar to the Type I, Class I refrigerator. For the 1800J unit, the ramp, conveyor panel, and J Panel are optional and when the conveyor panel is required, it replaces other standard wall panels.

Panel or component nomenclature		Quantity Needed			
		600-cu ft.	1200-cu ft.	1800-cu ft.	2000-cu ft.
panel	(A)	4	4	4	4
ard wall panel	(B)	8	11	14	26
n door panel w/door	(C)	1	1	2	4
rator panel	(D)	1	2	2	4
or ceiling panel, end, left	(EL)	2	2	2	2
or ceiling panel, end, right	(ER)	2	2	2	2
or ceiling panel, center	(F)	2	6	10	26
or door panel w/door	(G)	1	1	2	4
on panel	(H1)(H2)(H3)			1 each	3 each
y		1	1	2	4
		1	1	2	4
globe		1	1	2	4
ometer		1	1	2	4
g unit		4	9	12	30
rack, 24 1/4 in. wide		4	4	4	4
rack, 41 3/4 in. wide		2	6	10	26

Table 4-2.1. Refrigerator Component Data

Panel or component nomenclature		Number of panels and components used type I, class I refrigerators				
		600 cu. ft.	1200 cu. ft.	1800 cu. ft.	3000 cu. ft.	4000 cu. ft.
ner panel	(A)	4	4	4	4	4
andard wall panel	(B)	7	10	12	17	22
lk-in door panel w/door	(C)	1	1	2	3	4
aporator panel	(D)	1	1	2	3	4
oor or ceiling panel, end, left	(EL)	2	2	2	2	2
oor or ceiling panel, end, right	(ER)	2	2	2	2	2
oor or ceiling panel, center	(F)	2	6	10	18	28
nveyor door panel w/door	(G)	1	1	2	3	4
rtition panel	(H1) (H2) (H3)			1 each	2 each	3 each
nopy		1	1	2	3	4
mp		1	1	2	3	4
ght globe		1	1	2	3	4
ermometer		1	1	2	3	4
elving unit		4	9	12	21	30
oor rack, 24 1/4 in. wide		2	2	2	2	2
oor rack, 41 3/4 in. wide		1	3	5	9	13
pe 4"-OD B/PPP-T-60		1 roll	1 roll	2 rolls	3 rolls	4 rolls

nomenclature		400 cu. ft.	600 cu. ft.	800 cu. ft.	1200 cu. ft.	cu. ft.
Corner panel	(A)	4	4	4	4	4
Standard wall panel	(B)	5	7	7	8	10
Walk-in door panel with door	(C)	1	1	1	3	3
Evaporator panel	(D)	2	2	4	5	5
Floor or ceiling panel, end, left	(KL)	2	2	2	2	2
Floor or ceiling panel, end, right	(KR)	2	2	2	2	2
Floor or ceiling panel center	(M)	2	4	6	10	12
Partition panel	(H1) (H3)			1 each	2 each	2 each
Canopy		1	1	1	3	3
Ramp		1	1	1	3	3
Light globe		1	1	2	3	3
Thermometer		1	1	2	3	3
Shelving unit		3	4	6	9	10
Floor rack 24-1/4 in. wide		2	2	2	2	2
Floor rack 41-3/4 in. wide		1	2	3	5	6
Tape 4" -OD B/PPP-T-60		1 roll	1 roll	1 roll	1 roll	2 rolls

Table 4-3. Refrigerator Component Data Type II, Class 1

Panel or component nomenclature		Quantity Needed				
		400-cu. ft.	600-cu. ft.	800-cu. ft.	1200-cu. ft.	1400-cu. ft.
Corner panel	(A)	4	4	4	4	4
Standard wall panel	(B)	5	7	7	8	10
Walk-in door panel with door	(C)	1	1	1	3	3
Evaporator panel	(D)	2	2	4	5	5
Floor or ceiling panel, end, left	(KL)	2	2	2	2	2
Floor or ceiling panel, end, right	(KR)	2	2	2	2	2
Floor or ceiling panel, center	(M)	2	4	6	10	12
Partition panel	(H1) (H3)			1 each	2 each	2 each
Canopy		1	1	1	3	3
Ramp		1	1	1	3	3
Light Globe		1	1	2	3	3
Thermometer		1	1	2	3	3
Shelving unit		3	4	6	9	10
Floor rack 24 1/4 in. wide		2	2	2	2	2
Floor rack 41 3/4 in. wide		1	2	3	5	6

GENERAL MAINTENANCE INSTRUCTIONS

Section I. SPECIAL TOOLS AND EQUIPMENT

1. Special Tools and Equipment

There are no special tools or equipment necessary to perform direct support maintenance on the panel type prefabricated refrigerators.

2. Direct Support Maintenance Repair Parts

Direct support maintenance repair parts are

listed and illustrated in Appendix D of this manual.

3. Specially Designed Tools and Equipment

There are no specially designed tools or equipment necessary to perform direct support maintenance on the panel type prefabricated refrigerator.

Section II. DIRECT SUPPORT MAINTENANCE INSTRUCTIONS

4. General

Direct support maintenance personnel are responsible for replacement of the prefabricated refrigerators when it becomes necessary that the entire units be replaced. Replacement of the data plates which are located on the walk-in doors is also a responsibility of direct support maintenance.

5. Prefabricated Refrigerator

a. Removal. Refer to paragraphs 3-30 and 2-6 and remove all ceiling panels, walk-in door panels, conveyor door panels, evaporator panels, corner panels and floor panels.

b. Installation. Refer to paragraphs 3-30 and 2-4 and install all floor panels, corner panels, evaporator panels, conveyor door panels, walk-in door panels and ceiling panels.

APPENDIX A REFERENCES

Fire Protection

4200-200-10

Hand Portable Fire Extinguishers Approved for Army Users.

Operating Instructions

4110-203-15

Refrigeration Unit, Panel Type, 9,000 BTU

4110-209-15

Refrigeration Unit, Panel Type, 5,000 BTU

4110-210-14

Refrigeration Unit, Panel Type, 5,000 BTU

4110-212-15

Refrigeration Unit, Panel Type, 10,000 BTU

4110-218-15

Refrigeration Unit, Panel Type, 10,000 BTU

4110-221-14

Refrigeration Unit, Panel Type, 5,000 BTU

4110-226-14

Refrigeration Unit, Panel Type, 10,000 BTU

4110-227-14

Refrigeration Unit, Panel Type, 10,000 BTU

4110-228-14

Refrigeration Unit, Panel Type, 10,000 BTU

APPENDIX B

BASIC ISSUE ITEMS LIST AND ITEMS TROOP INSTALLED OR AUTHORIZED

Section I. INTRODUCTION

B-1. Scope

This appendix lists items required by the operator for operation of the refrigerator.

B-2. General

This list is divided into the following sections:

a. Basic Issue Items List—Section II. Not applicable.

b. Items Troop Installed or Authorized List—Section III. A list of items in alphabetical sequence, which at the discretion of the unit commander may accompany the refrigerator. These items are NOT SUBJECT TO TURN-IN with the refrigerator when evacuated.

B-3. Explanation of Columns

The following provides an explanation of columns in the tabular list of Basic Issue Items List, Sec-

tion II, and Items Troop Installed or Authorized, Section III.

a. Source, Maintenance and Recoverability Code (SMR). Not applicable.

b. Federal Stock Number. This column indicates the Federal stock number assigned to the item and will be used for requisitioning purposes.

c. Description. This column indicates the Federal item name and any additional description of the item required.

d. Unit of Measure (U/M). A two character alphabetic abbreviation indicating the amount or quantity of the item upon which the allowances are based, e.g., ft, ea, pr, etc.

e. Quantity Furnished with Equipment (BIIL). Not applicable.

f. Quantity Authorized (Items Troop Installed or Authorized). This column indicates the quantity of the Item authorized to be used with the equipment.

Section III. ITEMS TROOP INSTALLED OR AUTHORIZED LIST

(1) SMR code	(2) Federal stock number	(3) Description Ref. No. & Mfr date	(4) Unit of meas	(5) Qty auth
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APPENDIX C

MAINTENANCE ALLOCATION CHART

Section I. INTRODUCTION

General

Section I provides a general explanation of maintenance and repair functions allocated at various maintenance levels.

Section II designates overall responsibility for the performance of maintenance operations on a particular identified end item or component. The allocation of the maintenance tasks upon the end item or component will be consistent with the assigned maintenance operations.

Section III lists the special tools and test equipment required for each maintenance operation as referenced from Section II.

Section IV contains supplemental instructional explanatory notes and/or illustrations required for a particular maintenance function.

Explanation of Columns in Section II

Functional Group Number. The functional group is a numerical group set up on a functional basis. The applicable functional grouping indexes (obtained from TB 750-93-1 Functional Grouping Codes) are listed on the chart in the appropriate numerical sequence. The functional indexes are normally set up in accordance with their function and proximity to each

Component Assembly Nomenclature. This column contains a brief description of the components of each functional group.

Maintenance Operations and Maintenance

O/C—Operator or crew

O—Organizational

F—Direct Support

H—General Support

D—Depot

The maintenance operations are defined as follows:

A—SERVICE: Operations required periodically to keep the item in proper operating condition, i.e., to clean, preserve, drain, paint, and replenish fuel, lubricants, hydraulic, and de-icing fluids, or compressed air supplies.

B—ADJUST: Regulate periodically to prevent malfunction. Adjustments will be made commensurate with adjustment procedures and associated equipment specifications.

C—ALIGN: Adjust two or more components of an electrical or mechanical system so that their functions are properly synchronized or adjusted.

D—CALIBRATE: Determine, check, or rectify the graduation of an instrument, weapon, or weapons system or components of a weapons system.

cient electrical or mechanical failure by measuring the mechanical or electrical characteristics of the item and comparing those characteristics with authorized standards. Tests will be made commensurate with test procedures and with calibrated tools and/or test equipment referenced in the MAC.

G—REPLACE: Substitute serviceable components, assemblies and subassemblies for unserviceable counterparts or remove and install the same item when required for the performance of other maintenance operations.

H—REPAIR: Restore to a serviceable condition by replacing unserviceable parts or by any other action required using available tools, equipment and skills—to include welding, grinding, riveting, straightening, adjusting and facing.

I—OVERHAUL: Restore an item to a completely serviceable condition (as prescribed by serviceability standards developed and published by the commodity commands) by employing techniques of "Inspect and Repair Only as Necessary" (I R O A N). Maximum use of diagnostic and test equipment is combined with minimum disassembly during overhaul. "Overhaul" may be assigned to any level of maintenance except organizational maintenance.

overhaul as applicable items, is limited maintenance level.

J—REBUILD: Restore to a condition comparable to new by disassembling to determine condition of each component and reassembling serviceable, rebuilt, assemblies, subassemblies and parts.

d. Reference Note. This column, similar to columns K and L, is provided for indicating the Special Tool and Test Equipment Requirements (Sec. III) and Remarks (Sec. IV) that may be associated with maintenance operations (Sec. II).

C-3. Explanation of Columns in Section II

a. Reference Code. This column contains a number and a letter separated by a dash. The number references the T and TE Equipment Requirements column on the MAC. The letter indicates the specific maintenance operation the item is to be used with. The letter is representative of columns A through J on the MAC.

b. Maintenance Level. This column indicates the lowest level of maintenance authorized to use the special tool or test equipment.

c. Nomenclature. This column lists the name or identification of the tool or equipment.

d. Tool Number. This column lists the manufacturer's code and part number, or the general stock number, of tools and test equipment.

C-4. Explanation of Columns in Section III

a. Reference Code. This column consists of two letters separated by a dash, both of which are references to Section II. The first letter is a reference to column I, and the second letter is a reference to column J.

Section II. MAINTENANCE ALLOCATION CHART

Component assembly nomenclature	Essentiality	Maintenance levels										Note Ref	
		Maintenance operations										K	L
		A	B	C	D	E	F	G	H	I	J		
		Service	Adjust	Align	Calibrate	Inspect	Test	Replace	Repair	Overhaul	Rebuild	T&TE Rqmt	Remarks
BODY CHASSIS OR HULL, AND ACCESSORY ITEMS													
Data Plates:													
Plates, Data								F					
STORAGE EQUIPMENT COMPONENTS													
Refrigerator:													
Refrigerator		O/C				O/C		F	O				
Rack assembly, floor								O					A
Panel assemblies, prefabricated								O	O				
Roller; gasket; conveyor door								O					
Partition assembly								O	O				
Clamp and strike assemblies; barrel bolt								O					
Door panels; door latch and hinge assemblies		O/C						O					B
Lock, door latch								O					
Light assemblies								O					
Bulb (lamp)								O/C					
Switch assembly, light								O					
Cover; gasket; guard; light								O					
Receptacles, power								O					
Cover; gasket; guard; power receptacle								O					
Thermometer								O/C					
Strainer assembly, drain		O/C						O					
Canopy; ramp								O					

Reference code	Remarks
A—A	Service of floor rack assembly, includes removing, scrubbing with a soap and water solution, rinse and replace.
B—A	Service of door latch and hinge assemblies includes lubricating, polishing with suitable metal cleaner.

REPAIR PARTS LIST

Section I. INTRODUCTION

D-1. Scope.

This index contains a list of repair parts and equipment required for the performance of organizational and direct support maintenance of the prefabricated refrigerator.

D-2. General.

This repair parts and special tools list is divided into three principal sections and a National stock number index.

a. *Section II: Prescribed Load Allowance List (PLA).* A consolidated listing of repair parts quantitatively allocated for initial stockage at the organizational level. This is a mandatory minimum stockage allowance.

b. *Section III: Repair Parts List.* A list of repair parts authorized for the performance of maintenance at organizational level.

c. *Section IV: Repair Parts List.* A list of repair parts authorized for the performance of maintenance at the direct support level.

d. Allowances are based on 5,000 hours operation per year.

e. Part I applies to all models. Part II applies to type I models only. Part III applies to type II models only.

D-3. Explanation of Columns.

The following provides an explanation of columns in the tabular lists.

a. Source, Maintenance, and Recoverability

M Applied to repair parts which are not procured or stocked but are to be manufactured at indicated maintenance categories.

X2 Applied to repair parts which are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain them through cannibalization; if not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.

C Applied to repair parts authorized for local procurement. If not obtainable from local procurement, such repair parts will be requisitioned through normal supply channels with a supporting statement of nonavailability from local procurement.

(2) Maintenance code indicates the lowest category of maintenance authorized to maintain the listed item. The maintenance level codes are:

Code	Explanation
O	Organizational Maintenance
F	Direct Support Maintenance

(3) Recoverability code indicates whether unserviceable items should be returned for recovery or salvage. Items not coded are expendable.

d. Unit of issue indicates the unit used as a basis of issue, e.g., ea, pr, ft, yd, etc.

e. Quantity incorporated in unit pack indicates the actual quantity contained in the unit pack.

f. Quantity incorporated in unit indicates the quantity of repair parts in an assembly. Where an asterisk appears, refer to Table 4-2 and figures 4-1 and 4-2 for quantities applicable to a particular model.

g. Fifteen-Day organizational maintenance allowance.

(1) The allowance columns are divided into four subcolumns. Indicated in each subcolumn is the quantity of items authorized for the number of equipments supported. Items authorized for use as required but not for initial stockage are identified with an asterisk in the allowance column.

(2) The quantitative allowances for organizational level of maintenance represents one initial prescribed load for a 15-day period, for the number of equipments supported. Units and organizations authorized additional prescribed loads will multiply the number of prescribed loads authorized by the quantity of repair parts reflected in the appropriate density column to obtain the total quantity of repair parts authorized.

(3) Subsequent changes to allowances will be limited as follows: No change in the range of items is authorized. If additional items are considered necessary, recommendation should be forwarded to US Army Troop Support and Aviation Materiel Readiness Command for exception or revision to the allowance list. The range of items authorized will be made by this Command based upon engineering experience, demand data, or TAERS in-

identified with an asterisk allowance column.

(2) The quantitative allowances for of maintenance will represent stockage for a 30-day period number of equipments supported.

i. Illustration.

(1) Figure number indicates the number of the illustration by item is shown.

(2) Item or symbol number indicates callout number used to reference in the illustration.

D-4. Special Information.

Quantity shown in quantity incorporated reflects total for all units. Refer to figure 4-2 for quantity of specific unit.

D-5. How to Locate Repair Parts.

a. When National stock number is unknown.

(1) *First.* Using the index of determine the functional group, subgroup, i.e., engine, engine transmission, transmission and within which the repair part belongs is necessary because separate listings are prepared for functional or subgroups, and listings are directed to functional groups.

(2) *Second.* Find the repair part illustration in the back of the publication corresponding functional group or subgroup to which repair part belongs.

(3) *Third.* Identify the repair part illustration figure and item number repair part.

(4) *Fourth.* Using the repair part illustration figure and item number

number. This index is arranged in alphabetical sequence cross-referenced to page number and manufacturer's code.

Second. Refer to the appropriate page in this listing. Locate the functional group or code of the repair part and the illustration and item number as indicated in the last columns of the parts listing.

Abbreviations

.....	diameter
.....	each
.....	foot (feet)
.....	inside diameter
.....	inch(es)
.....	long (length)
.....	number(s)

npt	National Pipe Thread
thk	thick (ness)
v	volt(s)
w.	watt(s)
w	wide (width)

D-7. Federal Supply Codes

53853	Mid-South Industries, Inc.
87308	Capital Bolt & Screw
16245	Senco
32761	Kason
74545	Hubbel
72764	Southern Electric
87518	Standard Keil
64467	Wexler
75915	Southern Radio Supply
74951	Jarrow

Section II. PRESCRIBED LOAD ALLOWANCE

(1) Federal Stock Number	(2) Description	(2) 15-Day Org. Maint. Allowance			
		(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
	LIGHT, PILOT (53853) 447-6063-001-534-MDSI	22	55	110	231
	SWITCH (74545) 1251	2	3	7	14
	GASKET: vertical (53853) 5804	4	6	12	26
	GASKET: vertical (53853) 5805	8	20	40	84
	GASKET: bottom (53853) 5806	8	20	40	84
	GASKET: top (53853) 5803	8	20	40	84

(1) SMR code	(2) Federal/National stock number	(3) Description Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw			
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
		Section 3 — Repair Parts List for Organizational Level Part I Group 80 — Storage Equipment Components 8000 — Refrigerator Warehouse						
X20		Door, Walk-in 53853 90105	ea.	*	*	*	*	*
MO		Gasket, Door, Fab From	ft.					
MO		Rubber Sponge 74951 PHD-502N-1 (18'4" required for each gasket)			SEE GRP	9501		
PO		Hinge, Door 32761 1245	ea.	*	*	*	*	*
PO		Latch Assembly 32761 K-56	ea.	*	*	*	*	*
PO		Screw, Hinge, Mtg. 87308 C004	ea.	*	*	*	*	*
PO		Screw, Latch, Mtg. 87308 C004	ea.	*	*	*	*	*
X20		Panel A, Corner 53853 90113	ea.	*	*	*	*	*
PO		Camlock 53853 90021	ea.	*	SEE GRP	9501		
MO		Gasket, Panel Fab From	ft.					
MO		Rubber Sponge 74951 NX502B-1 (13' required for each gasket)			SEE GRP	9501		
PO		Screw, Camlock Mtg 87308 C003	ea.	*	*	*	*	*
X20		Panel B, Wall 53853 90114	ea.	*	*	*	*	*
PO		Camlock 53853 90021	ea.	*	SEE GRP	9501		
MO		Gasket Panel Fab From	ft.	*				
MO		Rubber Sponge 74951 NX502B-1 (13'2" required for each gasket)			SEE GRP	9501		

(2) Federal/National stock number	(3) Description Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance allow				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig No.	(b) Item No.
35-01-438-9943 35-00-222-0072	Gasket, Panel Fab From		ft.							
	Rubber Sponge 32761 NX502B-1 (13" required for each gasket)				SEE GRP 9501					
	Cap, Receptacle	74545 4884	ea.	*	*	*	*	*	D4	22
	Boot, Receptacle	74545 7440	ea.	2					D4	21
	Receptacle, Female Plug	74545 7484	ea.	*	*	*	*	*	D4	21
	Receptacle, Male	74545 7486	ea.	2					D4	18
	Pilot Light Assembly	53853 477-6063- MDSI	ea.	*	*	*	*	*	D4	27
	Cover, Pilot Light	53853 25-1-SGS- MDSI	ea.	*	*	*	*	*	D4	27
	Vapor Proof Light Assembly	87518 VBB100PC	ea.	*	*	*	*	*	D4	4
	Screw Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
	Screw, Cover Mtg.	87308 C006	ea.	*	*	*	*	*	D4	20
	Screw, Light Mtg.	87308 C005	ea.	*	*	*	*	*	D4	5
	Screw, Pilot Light	87308 C006	ea.	*	*	*	*	*	D4	23
	Screw, Receptacle	87308 C007	ea.	*	*	*	*	*	D4	19
	Screw, Strike Mtg.	87308 C004	ea.	*	*	*	*	*	D4	25
	Switch	74545 1251	ea.	*	2	3	7	14	D4	16
	Switch Cover	74545 1750	ea.	1	*	*	*	*	D4	16
	Screw, Switch Mtg.	87308 C006	ea.	*	*	*	*	*	D4	17
Thermometer	64467 7269	ea.	*	*	*	*	*	D4	14	

(1) SMR code	(2) Federal/National stock number	(3) Description Usable- on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw			
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
PO		Clip, Panel Wrench 75915 105002	ea.	*	*	*	*	*
MO		Gasket, Panel Fab From						
MO		Rubber Sponge 74951 NX502B-1 (13' required for each gasket)	ft.		SEE GRP 9501			
PO		Screw, Camlock 87308 C003 Mtg.	ea.	*	*	*	*	*
PO		Screw, Clip Mtg. 87308 C005	ea.	*	*	*	*	*
X20		Thermal Strip: 53853 90110 Horizontal, Masonite, Fab From	ea.	*				
CO		Building Board, Hard Pressed, Vegetable Fiber (5½" x 38 9/16" required for each Thermal Strip)						
X20		Thermal Strip: 53853 90111 Vertical, Masonite Fab From	ea.	*				
CO		Building Board, Hard Pressed, Vegetable Fiber (5½" x 55½" required for each Thermal Strip)						
X20		Panel H-1: 53853 90133 Partition	ea.	*	*	*	*	*
PO		Bolt, Barrel 53853 4842	ea.	*	*	*	*	*
PO		Gasket, Bottom 53853 5806	ft.	*	SEE GRP 9901			
MO		Gasket, Top 53853 5803	ft.	*	SEE GRP 9901			
MO		Gasket, Vertical 53853 5805	ft.	*	SEE GRP 9901			

(1) SVR code	(2) Federal/National stock number	(3) Description Usable - on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Ref number & mfr code									
MO		Gasket, Top 53853 5803		ft.	*	SEE GRP 9901				D1	4
MO		Gasket, Vertical 53853 5804		ft.	*	SEE GRP 9001				D1	13
PO		Screw, Barrel Bolt Mtg. 87308 C001		ea.	*	*	*	*	*	D1	16
X20		Panel H-3: Partition 53853 90135		ea.	*	*	*	*	*	D1	12
PO		Bolt, Barrel 53853 4842		ea.	*	*	*	*	*	D1	15
PO		Gasket, Bottom 53853 5806		ft.	*	SEE GRP 9901				D1	11
MO		Gasket, Top 53853 5803		ft.	*	SEE GRP 9901				D1	4
MO		Gasket, Vertical 53853 5805		ft.	*	SEE GRP 9901				D1	5
PO		Screw, Barrel Bolt Mtg. 87308 C001		ea.	*	*	*	*	*	D1	16
MO		Gasket, Vertical 53853 5804		ft.	*	SEE GRP 9901				D1	13
		Group 95 — General Use Standardized Parts									
		9501 BULK MATERIAL									
PO		Rubber Sponge 74951 NX502B-1		ft.		*	*	*	*		
PO		Tape, P.S. 53853 6818		rl.	4						
		Group 99 — Parts Peculiar 9901 — Parts Peculiar with more than one application									
MO		Gasket, Vertical 53853 5805		ft.		8	20	40	84		
PO		Gasket, Bottom 53853 5806		ft.		8	20	40	84		
		53853 5803		ft.		8	20	40	84		

SMR code	Federal/National stock number	Description	Usable - on code	Unit of meas	Qty inc in unit	15-Day Organizational Maintenance adjw			
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
		Section 3 — Repair Parts List for Organizational Level		ea.					
		Part II							
		Type I Assemblies		ea.					
		Group 80 — Storage Equipment Components		ea.					
		8000 — Refrigerator Warehouse							
X20		Floor Racks, 53853 90023 Large		ea.	*	*	*	*	*
X20		Floor, Racks, 53853 90022 Small		ea.	*	*	*	*	*
X20		Panel, CL, 53853 90118 Left Ceiling		ea.	*	*	*	*	*
X20		Panel FL, 53853 90117 Left Floor		ea.	*	*	*	*	*
PO		Camlock 53853 90021		ea.	*	*	*	*	*
PO		Drain, Inside 53853 90131		ea.	*	*	*	*	*
PO		Drain, Outside 53853 90130		ea.	*	*	*	*	*
MO		Gasket, Panel, Fab From			*				
MO		Rubber, Sponge 74951 NX502B-1 50'8" required for each gasket		ft.	SEE GRP 9501				
PO		Screw, Camlock 87308 C003 Mtg.		ea.	*	*	*	*	*
PO		Screw, Drain Mtg. 87308 C005		ea.	*	*	*	*	*
PO		Screw, Strainer 87308 C005 Mtg.		ea.	*	*	*	*	*

(2) Federal/National stock number	(3)		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance allow				(7) Illus- tration	
	Description	Usable on code			(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig No.	(b) Item No.
	Panel, FC Center Floor	53853 90122	ea.	*	*	*	*	*	D1	3
	Panel, CC Center Ceiling	53853 90121	ea.	*	*	*	*	*	D1	3
	Camlock	53853 90021	ea.	*	SEE GRP 9901				D4	12
	Gasket, Panel Fab From								D4	6
	Rubber, Sponge 50'8" required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
	Screw, Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
	Panel A, Corner	53853 90113	ea.						D1	9
	Gasket, Panel, Fab From								D4	6
	Rubber, Sponge 13' required for each gasket	74951 NX502B-1	ea.		SEE GRP 9501					
	Camlock	53853 90021	ea.	*					D4	12
	Panel B, Wall	53853 90114	ea.	*					D1	10
	Gasket, Panel Fab From			Ref					D4	6
	Rubber Sponge 13'2" required for each gasket	74951 NX502B-1	ft.		SEE GRP 9501					
	Camlock	53853 90021	ea.		SEE GRP 9901				D4	12
	Panel C, Door	53853 90106	ea.	*					D1	8
	Gasket, Panel Fab From			Ref					D4	6

PO	Receptacle, Power	74545 7486	ea.			
PO	Plug, Power	74545 7484	ea.			
PO	Boot, Receptacle	74545 7440	ea.			
PO	Switch	74545 1251	ea.			
PO	Light, Vapor Proof	87518 VBB100PC	ea.			
X20	Door, Walk-in	53853 90105	ea.			
MO	Gasket, Door Fab From	74951 PHD502N-1	ft.			
MO	Rubber Sponge 18'4" required for each gasket			SEE GRP	9501	
PO	Latch Assembly	32761 K-56	ea.			
PO	Hinge: RH	32761 1245	ea.			
X20	Canopy	53853 90024	ea.			
X20	Panel D, Evaporator	53853 90115	ea.			
MO	Gasket, Panel Fab From					
MO	Rubber Sponge 13" required for each gasket	74951 NX502B-1	ft.	SEE GRP	9501	
PO	Camlock	53853 90021	ea.	SEE GRP	9901	
PO	Clip, Wrench	75915 105002	ea.			
PO	Wrench, Hexagon	32761 1145	ea.			
X20	Panel, FL, Left Floor	53853 90117	ea.			
X20	Panel, FR, Right Floor	53853 90119	ea.			
X20	Panel, FC, Center Floor	53853 90122	ea.			
MO	Gasket, Panel					
MO	Rubber Sponge 50'8" required for each gasket	74951 NX502B-1	ft.	SEE GRP	9501	

(1) SYR code	(2) Federal/National stock number	(3) Description Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
		Ref number & mfr code									
PO		Camlock 53853 90021		ea.		SEE GRP	9901			D4	12
PO		Drain, Inside 53853 90131		ea.						D2	5
PO		Drain, Outside 53853 90130		ea.						D2	10
PO		Strainer, Drain 53853 90132		ea.						D2	3
X20		Panel, CL, Left Ceiling 53853 90118		ea.						D1	2
X20		Panel, CR, Right Ceiling 53853 90120		ea.						D1	2
X20		Panel, CC, Center Ceiling 53853 90121		ea.						D1	3
MO		Gasket, Panel Fab From								D4	6
MO		Sponge Rubber 74951 NX502B-1 50"8" required for each gasket		ft.		SEE GRP	9501				
PO		Camlock 53853 90021		ea.		SEE GRP	9901			D4	12
X20		Floor Rack, Large 53853 90023		ea.						D7	1
X20		Floor Rack, Small 53853 90022		ea.						D7	2
		Group 95 — General Use Standardized Parts		ea.							
		9501 — Bulk Material		ea.							
PO		Rubber, Sponge 74951 NX502B-1		ft.		*	*	*	*		
		Group 99 — Parts Peculiar									
		9901 — Parts Peculiar with more		ea.							

code	stock number	Ref number & mfr code	Description	Usable-on code	Unit of meas	Qty inc in unit	(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	Maintenance allow
			Section 3 - Repair Parts List for Organizational Level		ea.						
			Part III								
			TYPE II - ASSEMBLIES								
			Group 80 - Storage Equipment Components		ea.						
			8000 - Refrigerator Warehouse								
X20			Floor Rack, Large 53853 90023		ea.	*	*	*	*		
X20			Floor Rack, Small 53853 90022		ea.	*	*	*	*		
X20			Floor Panel, FL 53853 90117		ea.	*	*	*	*		
MO			Gasket, Fab From		ea.	*	*	*	*		
MO			Rubber Sponge 74951 NX502B-1 50'8" required for each gasket		ft.	SEE GRP 9501					
PO			Camlock 53853 90021		ea.	SEE GRP 9901					
PO			Drain, Inside 53853 90131		ea.	*	*	*	*		
PO			Drain, Outside 53853 90130		ea.	*	*	*	*		
PO			Drain, Strainer 53853 90132		ea.	*	*	*	*		
X20			Floor Panel, FR 53853 90119		ea.	*	*	*	*		
X20			Floor Panel, FC 53853 90112		ea.	*	*	*	*		D1
MO			Gasket, Fab From		ea.	*	*	*	*		D1
MO			Rubber Sponge 74951 NX502B-1 50'8" required for each gasket		ft.	SEE GRP 9501					
PO			Camlock 53853 90021		ea.	SEE GRP 9901					
			Group 95 - General Use Standardized Parts		ea.						
			9501 - Bulk Material								

(2) Federal/National stock number	(3) Description Ref number & mfr code	(4) Usable - on code	(5) Unit of meas	(6) Qty inc in unit	(6) 15-Day Organizational Maintenance allow				(7) illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig No.	(b) Item No.
	Group 99 – Parts Peculiar									
	9901 – Parts Peculiar with more than one application		ea.							
	Camlock 53853 90021		ea.		*	*	*	*		

SMR code	Federal/National stock number	Description Ref number & mfr code	Usable- on code	Unit of meas	Qty inc in unit	15-Day Organizational Maintenance alw				(e) Fig No
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	
		Section 4 — Repair Parts List for Direct Support Level		ea.						
		Part I								
		Group 11 — Body Chassis or Hull, and Accessory Items		ea.						
X20		Door, Walk-in 53853 90105		ea.		*	*	*	*	D
MO		Gasket, Door Fab From								D
MO		Rubber Sponge 74951 PHD502N-1 18'4" required for each gasket		ft.		SEE	GRP	9501		
X20		Hinge, Door 32761 1245		ea.		*	*	*	*	D
PO		Latch Assembly 32761 K-56		ea.		*	*	*	*	D
PO		Screw, Hinge Mtg. 87308 C004		ea.		*	*	*	*	D
PO		Screw, Latch Mtg. 87308 C004		ea.		*	*	*	*	D
X20		Panel A, Corner 53853 90113		ea.		*	*	*	*	D
PO		Camlock 53853 90021		ea.		SEE	GRP	9901		D
MO		Gasket, Panel Fab From								D
MO		Rubber Sponge 74951 NX502B-1 13' required for each gasket		ft.		SEE	GRP	9501		
PO		Screw, Camlock 87308 C003 Mtg.				*	*	*	*	D
X20		Panel B, Wall 53853 90114		ea.		*	*	*	*	D
PO		Camlock 53853 90021		ea.		SEE	GRP	9901		D
MO		Gasket Panel, Fab From								D
MO		Rubber Sponge 74951 NX502B-1 13'2" required for each gasket		ft.		SEE	GRP	9501		

JWR code	(2) Federal/National stock number	(3) Description Usable- on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No	(b) Item No.
X20		Canopy Door	53853 90024	ea.	*	*	*	*	*	D1	6
PO		Cap, Receptacle	74545 4884	ea.	*	*	*	*	*	D4	22
PO		Boot, Receptacle	74545 7440	ea.	*	*	*	*	*	D4	21
PO		Receptacle	74545 7484	ea.	*	*	*	*	*	D4	18
PO		Camlock	53853 90021	ea.		SEE GRP 9901				D4	12
PO		Pilot Light Assembly	53853 477-6063- MDSI	ea.	*	*	*	*	*	D4	24
PO		Cover, Pilot Light	53853 25-1-SGS- MDSI	ea.	*	*	*	*	*	D4	24
PO		Light Assembly	87518 VBB100PC	ea.	*	*	*	*	*	D4	4
PO		Switch	74545 1251	ea.	*	*	*	*	*	D4	16
PO		Switch, Cover	74545 1750	ea.	*	*	*	*	*	D4	26
PO		Thermometer	64467 7269	ea.	*	*	*	*	*	D4	14
PO		Screw, Light Mtg.	87308 C005	ea.	*	*	*	*	*	D4	5
PO		Screw,Camlock Mtg.	87308 C003	ea.	*	*	*	*	*	D4	13
PO		Screw, Pilot Light	87308 C006	ea.	*	*	*	*	*	D4	23
PO		Screw, Receptacle	87308 C007	ea.	*	*	*	*	*	D4	19
PO		Screw, Switch Mtg.	87308 C006	ea.	*	*	*	*	*	D4	23
PO		Screw, Thermom- eter Mtg.	87308 C005	ea.	*	*	*	*	*	D4	5
X20		Panel D, Evaporator	53853 90115	ea.	*	*	*	*	*	D1	1
PO		Wrench, Hexagon	32761 1145	ea.	*	*	*	*	*	D1	19
PO		Camlock	53853 90021	ea.	*	*	*	*	*	D4	12
PO		Clin. Panel Wrench	75915 105002	ea.	*	*	*	*	*	D1	18

	stock number	Description	Ref number & mfr code	Usable- on code	Unit of meas	Qty inc in unit	(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	Maintenance alw
PO		Screw, Clip Mtg.	87308 C005		ea.						
X20		Thermal Strip	53853 90110		ea.						
		Horizontal Masonite, Fab From			ea.						
CO		Building Board, Hard Pressed, Vegetable Fiber			ea.						
		5" x 38" required for each Thermal Strip									
X20		Thermal Strip,	53853 90111		ea.						
		Vertical Masonite Fab From									
CO		Building Board Hard Pressed, Vegetable Fiber			ea.						
		5½" x 55½" required for each Thermal Strip									
X20		Panel H-1 Partition	53853 90133		ea.	*	*	*	*	*	D1
PO		Bolt, Barrel	53853 4842		ea.	*	*	*	*	*	D1
PO		Gasket, Bottom	53853 5806		ft.		SEE GRP 9901				D1
MO		Gasket, Top	53853 5803		ft.	*	*	*	*	*	D1
MO		Gasket, Vertical	53853 5805		ft.	*	*	*	*	*	D1
PO		Screw, Barrel Bolt Mtg.	87308 C001		ea.	*	*	*	*	*	D1
X20		Panel H-2 Partition	53853 90134		ea.	*	*	*	*	*	D1
PO		Bolt, Barrel	53853 4842		ea.	*	*	*	*	*	D1
PO		Gasket, Bottom	53853 5806		ft.		SEE GRP 9901				D1
MO		Gasket, Top	53853 5803		ft.	*	*	*	*	*	D1
MO		Gasket, Vertical	53853 5804		ft.	*	*	*	*	*	D1

(2) Federal-National stock number	(3) Description Ref number & mfr code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig No.	(b) Item No.
	Panel H-3 Partition	53853 90135	ea.	*	*	*	*	*	D1	12
	Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
	Gasket, Bottom	53853 5806	ft.		SEE GRP	9901			D1	11
	Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
	Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
	Screw, Barrel Bolt Mtg.	87308 C001	ea.	*	*	*	*	*	D1	16
	Gasket, Vertical	53853 5804	ft.		SEE GRP	9901			D1	13
	Group 95 — General Use Standardized Parts		ea.							
	9501 — Bulk Material		ea.							
	Rubber Sponge	74951 NX502B-1	ft.							
	Tape, PS	53853 6818	ea.							
	Group 99 — Parts Peculiar									
	9901 — Part Peculiar with more than one application		ea.							
	Gasket, Vertical	53853 5805	ft.		40	40	84	168		
	Gasket, Bottom	53853 5806	ft.		40	40	84	168		
	Gasket, Top	53853 5803	ft.		40	40	84	168		
	Camlock	53853 90021	ea.		*	*	*	*		

SMR code	Federal/National stock number	Description	Usable- on code	Unit of meas	Qty inc in unit	15-Day Organizational Maintenance alw				F h
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	
		Section 4 — Repair Parts List for Direct Support Level Part II TYPE I — ASSEMBLIES Group 80 — Storage Equipment Components 8000 — Refrigerator Warehouse		ea.						
X20		Floor, Racks, Large 53853 90023		ea.	*	*	*	*	*	D
X20		Floor, Racks, Small 53853 90022		ea.	*	*	*	*	*	D
X20		Panel, CL, Left 53853 90118 Ceiling		ea.	*	*	*	*	*	D
X20		Panel, FL, Left 53853 90117 Floor		ea.	*	*	*	*	*	D
PO		Camlock 53853 90021		ea.		SEE GRP 9901				D4
PO		Drain, Inside 53853 90131		ea.	*	*	*	*	*	D2
PO		Drain, Outside 53853 90130		ea.	*	*	*	*	*	D2
PO		Strainer, Inside 53853 90132 Drain		ea.	*	*	*	*	*	D2
MO		Gasket, Panel Fab From								D4
MO		Rubber Sponge 74951 NX502B-1 50"8" required for each gasket		ft.		SEE GRP 9501				
PO		Screw, Camlock 87308 C003 Mtg.		ea.	*	*	*	*	*	D4
PO		Screw, Drain Mtg. 87308 C005 Mtg.		ea.	*	*	*	*	*	D2
PO		Screw, Strainer Mtg. 87308 C005		ea.	*	*	*	*	*	D2

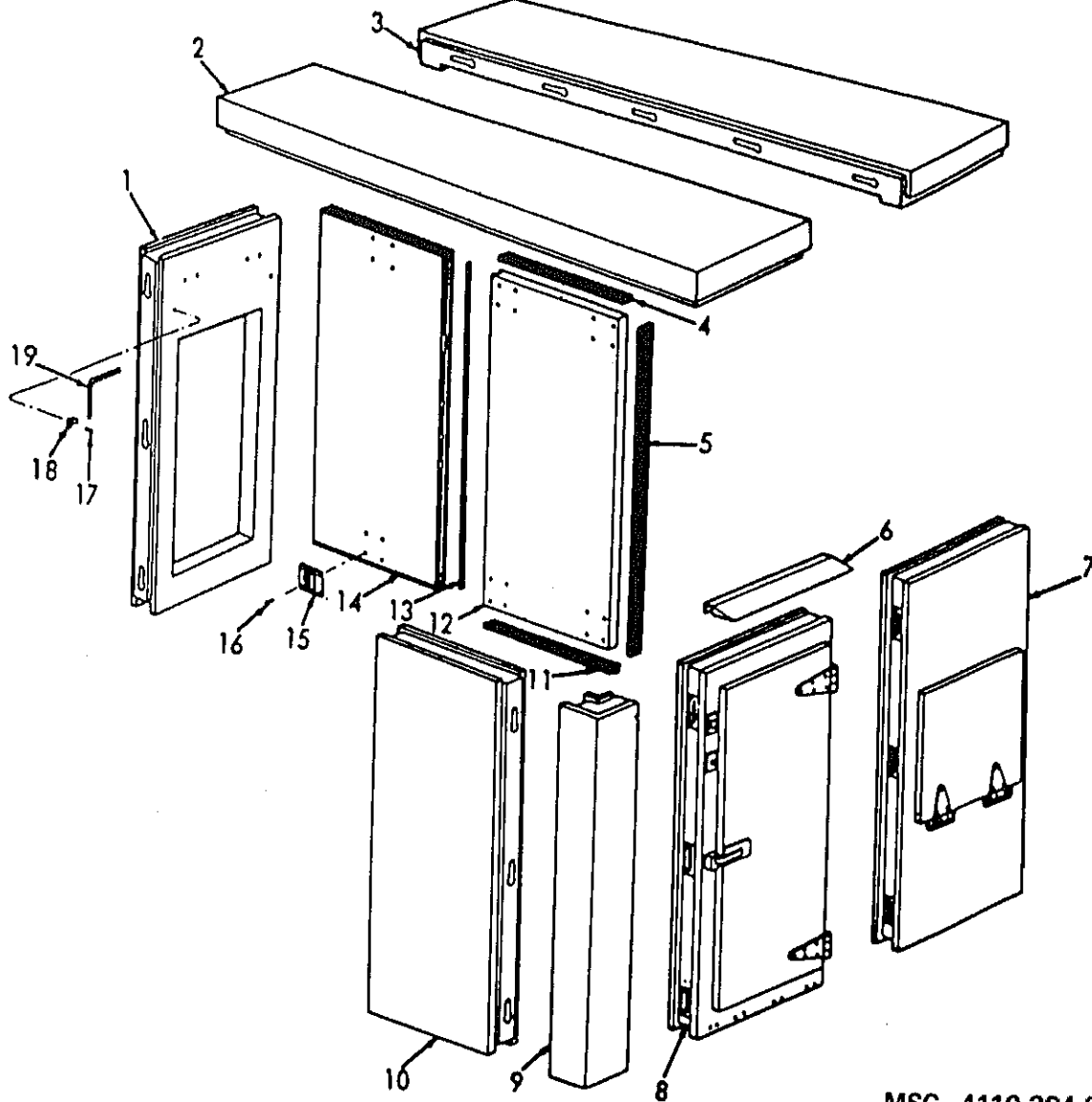
(2) Federal/National stock number	(3) Description		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance allow				(7) Illustration	
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
	Ref number & mfr code	Usable- on code								
0	Panel, FC,	53853 90122	ea.	*	*	*	*	*	D1	3
0	Panel, CC,	53853 90121	ea.	*	*	*	*	*	D1	3
	Camlock	53853 90021	ea.		SEE GRP	9901			D4	12
	Gasket, Panel Fab From									
	Rubber Sponge	74951 NX502B-1	ft.		SEE GRP	9501				
	40'8" required for each gasket									
	Screw, Camlock	87308 C003	ea.	*	*	*	*	*	D4	13
	Mtg.									
0	Panel H-1 Partition	53853 90133	ea.	*	*	*	*	*	D1	12
0	Panel H-2 Partition	53853 90134	ea.	*	*	*	*	*	D1	14
	Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
	Gasket, Bottom	53853 5806	ft.	*	*	*	*	*	D1	11
	Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
	Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
	Screw, Barrel	87308 C001	ea.	*	*	*	*	*	D1	16
	Bolt Mtg.									
0	Panel H-3 Partition	53853 90135	ea.	*	*	*	*	*	D1	12
	Bolt, Barrel	53853 4842	ea.	*	*	*	*	*	D1	15
	Gasket, Bottom	53853 5806	ft.	*	*	*	*	*	D1	11
0	Gasket, Top	53853 5803	ft.	*	*	*	*	*	D1	4
0	Gasket, Vertical	53853 5805	ft.	*	*	*	*	*	D1	5
	Screw, Barrel	87308 C001	ea.	*	*	*	*	*	D1	16
	Bolt Mtg.									

(1) SMR code	(2) Federal/National stock number	(3) Description Usable - on code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw			
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
PO		Rubber Sponge 74951 NX502B-1 13' required for each gasket		ft.		SEE GRP	9501		
PO		Camlock 53853 90021		ea.					
X20		Panel B, Wall 53853 90114		ea.					
MO		Gasket, Panel Fab From							
MO		Rubber Sponge 74951 NX502B-1 13'2" required for each gasket		ft.		SEE GRP	9501		
PO		Camlock 53853 90021		ea.					
X20		Panel C, Door 53853 90106		ea.					
MO		Gasket, Panel Fab From							
MO		Rubber Sponge 74951 NX502B-1 13' required for each gasket		ft.		SEE GRP	9501		
PO		Camlock 53853 90021		ea.					
PO		Cover, Pilot 53853 25-1-SGS- Light MDSI		ea.					
PO		Receptacle, Power 74545 7486		ea.					
PO		Plug, Power 74545 7484		ea.					
PO		Boot, Receptacle 74545 7440		ea.					
PO		Switch 74545 1251		ea.					
PO		Vapor Proof 87518 VBB100PC Light		ea.					
X20		Door, Walk-in 53853 90105		ea.					
MO		Gasket, Door Fab From							
MO		Rubber Sponge 74951 PHD502N-1		ft.		SEE GRP	9501		

(2) Federal, National stock number	(3) Description Ref number & nfr code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illustration	
				(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig No.	(b) Item No.
	Panel D, Evaporator 53853 90115	ea.						D1	1
	Gasket, Panel Fab From							D4	6
	Rubber Sponge 74951 NX502B-1 13' required for each gasket	ft.		SEE	GRP	9501			
	Camlock 53853 90021	ea.		SEE	GRP	9901		D4	12
	Clip, Wrench 75915 105002	ea.						D1	18
	Wrench, Hexagon 32761 1145	ea.						D1	19
	Group 95 — General Use Standardized Parts	ea.							
	9501 — Bulk Material	ea.							
	Rubber Sponge 74951 NX502B-1	ft.	*	*	*	*	*		
	Group 99 — Parts Peculiar	ea.							
	9901 — Parts Peculiar with more than one application	ea.							
	Camlock 53853 90021	ea.	*	*	*	*	*		

(1) SMR code	(2) Federal/National stock number	(3) Description Usable - on code	(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance allow			
					(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100
		Ref number & mfr code						
		Section 4 – Repair Parts List for Direct Support Level Part III TYPE II – ASSEMBLIES Group 80 – Storage Equipment	ea.					
		8000 – Refrigerator Warehouse	ea.					
X20		Floor Rack, Large 53853 90023	ea.	*	*	*	*	*
X20		Floor Rack, Small 53853 90022	ea.	*	*	*	*	*
X20		Floor Panel, FL 53853 90117	ea.	*	*	*	*	*
MO		Gasket, Panel Fab From						
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501		
PO		Camlock 53853 90021	ea.		SEE GRP	9901		
PO		Drain, Inside 53853 90131	ea.	*	*	*	*	*
PO		Drain, Outside 53853 90130	ea.	*	*	*	*	*
PO		Drain, Strainer 53853 90132	ea.	*	*	*	*	*
X20		Floor Panel, FR 53853 90119	ea.	*	*	*	*	*
X20		Floor Panel, FC 53853 90122	ea.	*	*	*	*	*
MO		Gasket, Panel Fab From						
MO		Rubber Sponge 74951 NX502B-1 50'8" required for each gasket	ft.		SEE GRP	9501		
PO		Camlock 53853 90021	ea.		SEE GRP	9901		
		Group 95 – General Use Standardized Parts	ea.					

SMR code	(2) Federal/National stock number	(3) Description Ref number & mfr code		(4) Unit of meas	(5) Qty inc in unit	(6) 15-Day Organizational Maintenance alw				(7) Illus- tration	
						(a) 1-5	(b) 6-20	(c) 21-50	(d) 51-100	(a) Fig. No.	(b) Item No.
70		Rubber Sponge 74951 NX502B-1	ft.	*	*	*	*	*			
		Group 99 – Parts Peculiar	ea.								
		9901 – Parts Peculiar with more than one application	ea.								
70		Camlock 53853 90021	ea.	*	*	*	*	*			



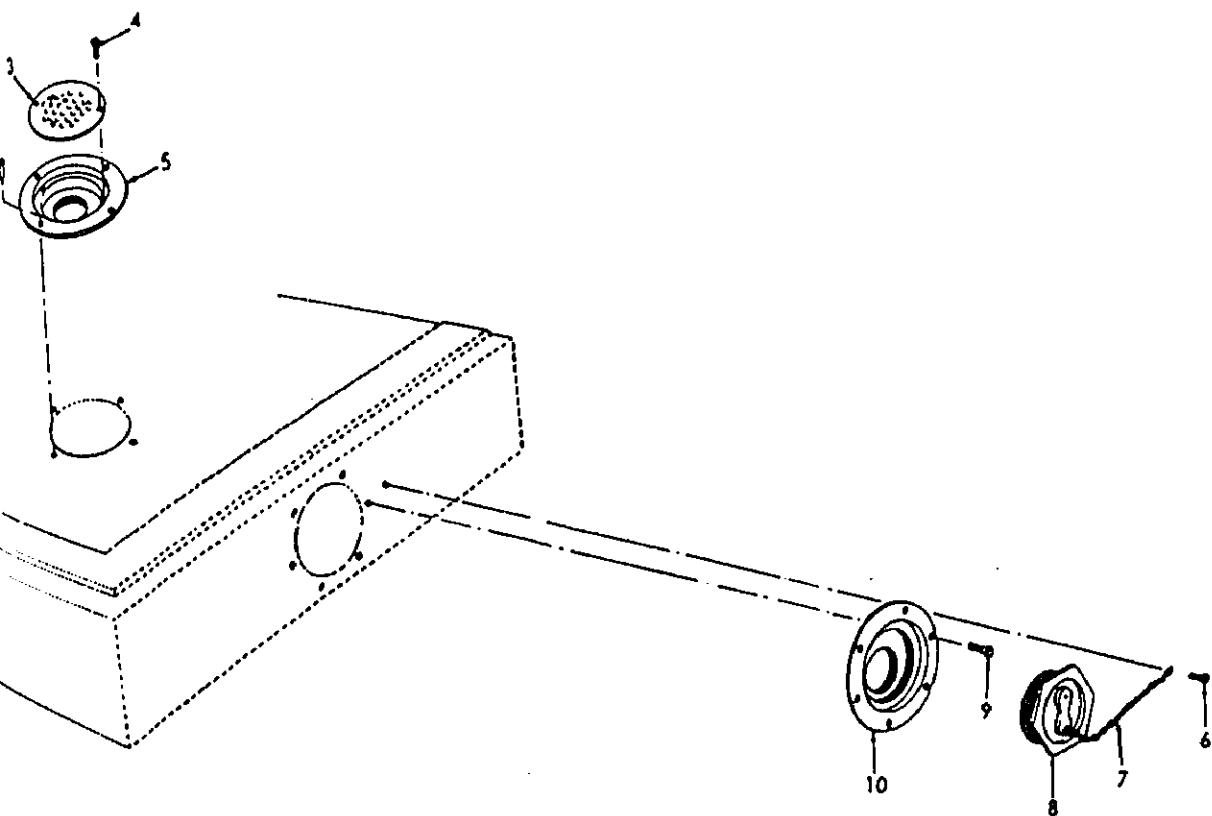
MSC 4110-204-2

Figure 1. Compartment Panels
INDEX TO PARTS, FIGURE 1

REF NO.	FUNCT GROUP	ITEM NAME
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REF NO.	FUNCT GROUP	ITEM NAME
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REF NO.	FUNCT GROUP	ITEM NAME
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MSC 4110-204-25P/2

Figure 2. Floor Drain Components

INDEX TO PARTS, FIGURE 2

REF NO.	FUNCT GROUP	ITEM NAME	REF NO.	FUNCT GROUP	ITEM NAME
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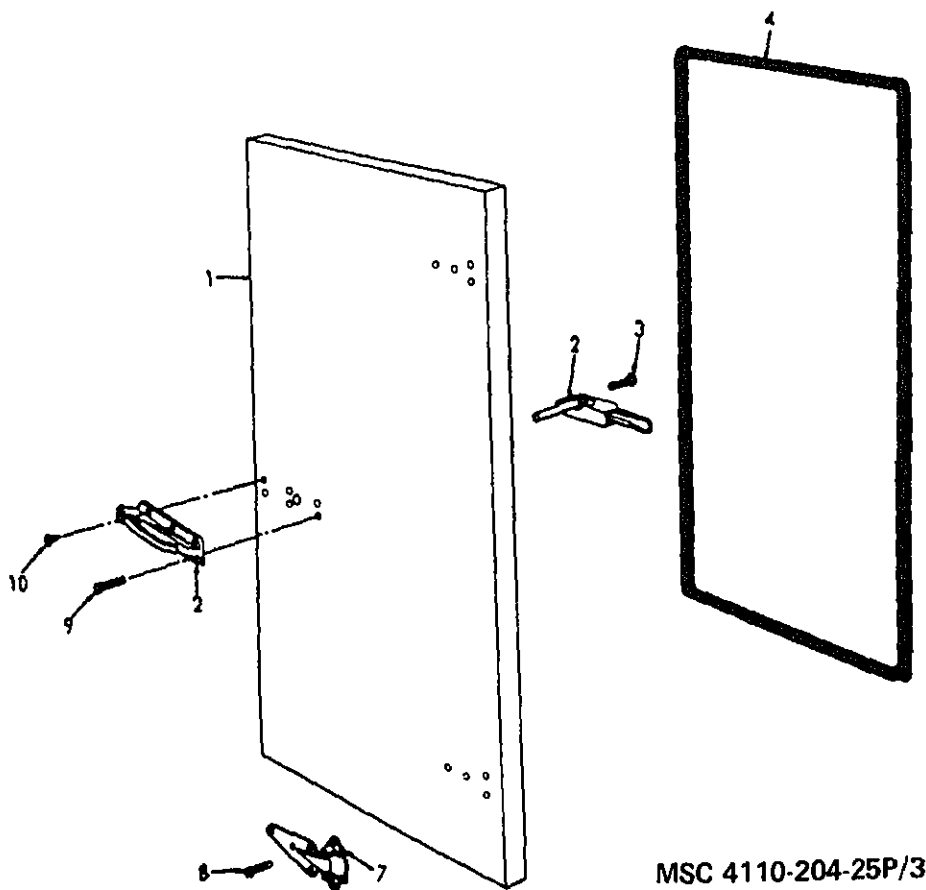
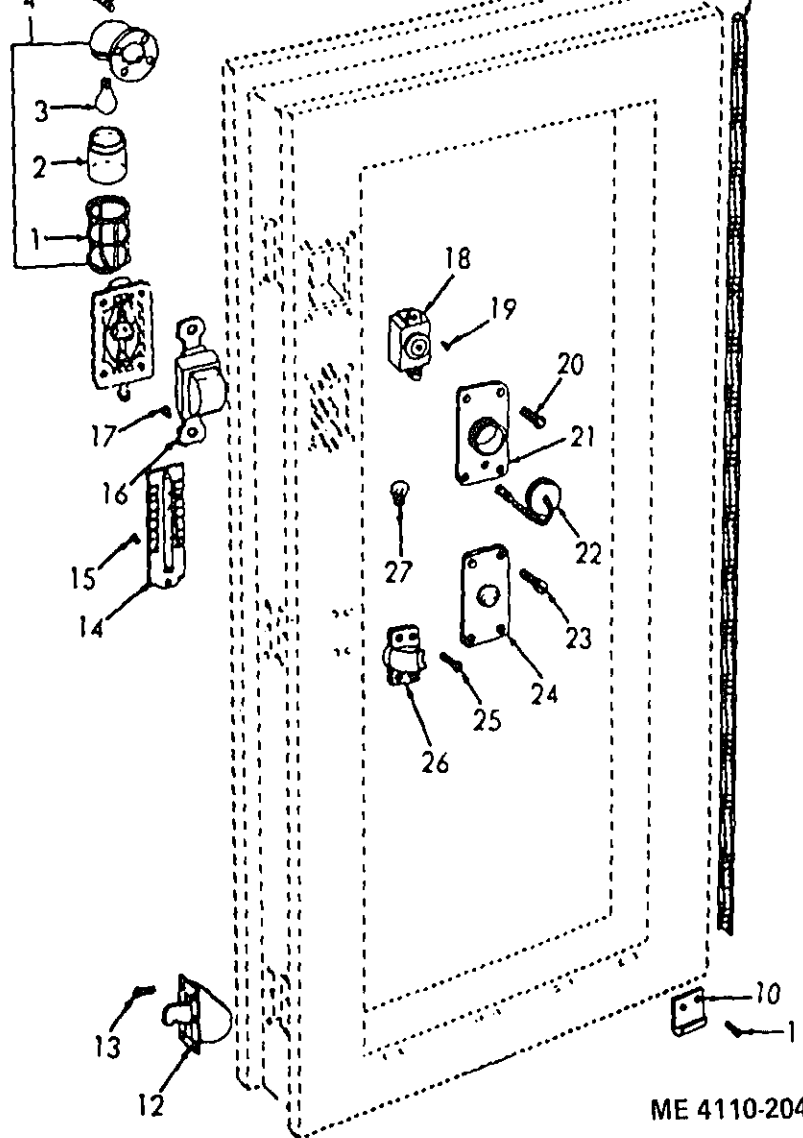


Figure 3. Walk-in Door, Latch, and Hinge

INDEX TO PARTS, FIGURE 3

REF NO	FUNCT GROUP	ITEM NAME	REF NO	FUNCT GROUP	ITEM NAME
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ME 4110-204-13/4 C2

Figure 4. Panel C Components

INDEX TO PARTS, FIGURE 4

REF NO.	FUNCT GROUP	ITEM NAME
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REF NO.	FUNCT GROUP	ITEM NAME
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REF NO.	FUNCT GROUP	ITEM NAME
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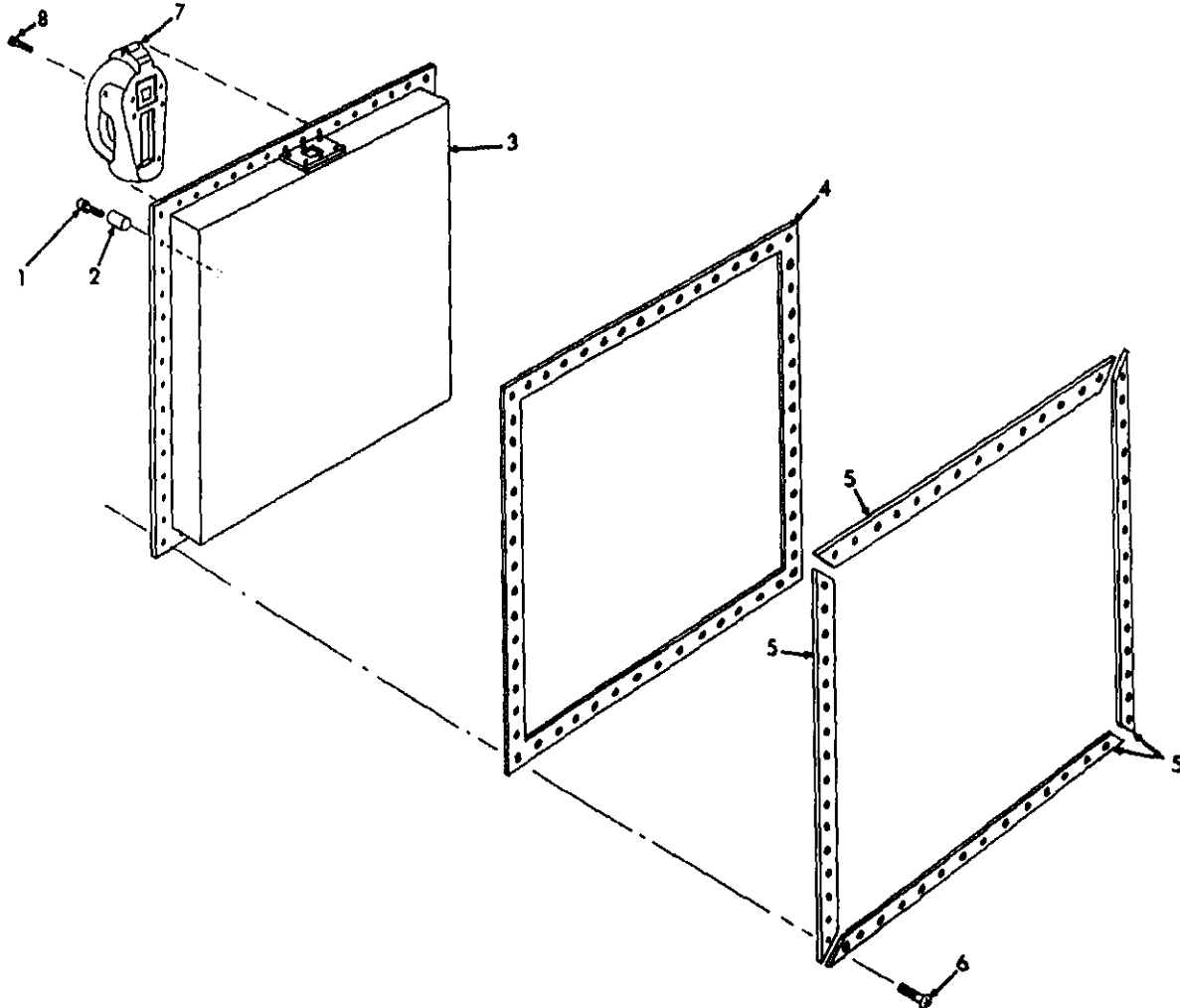
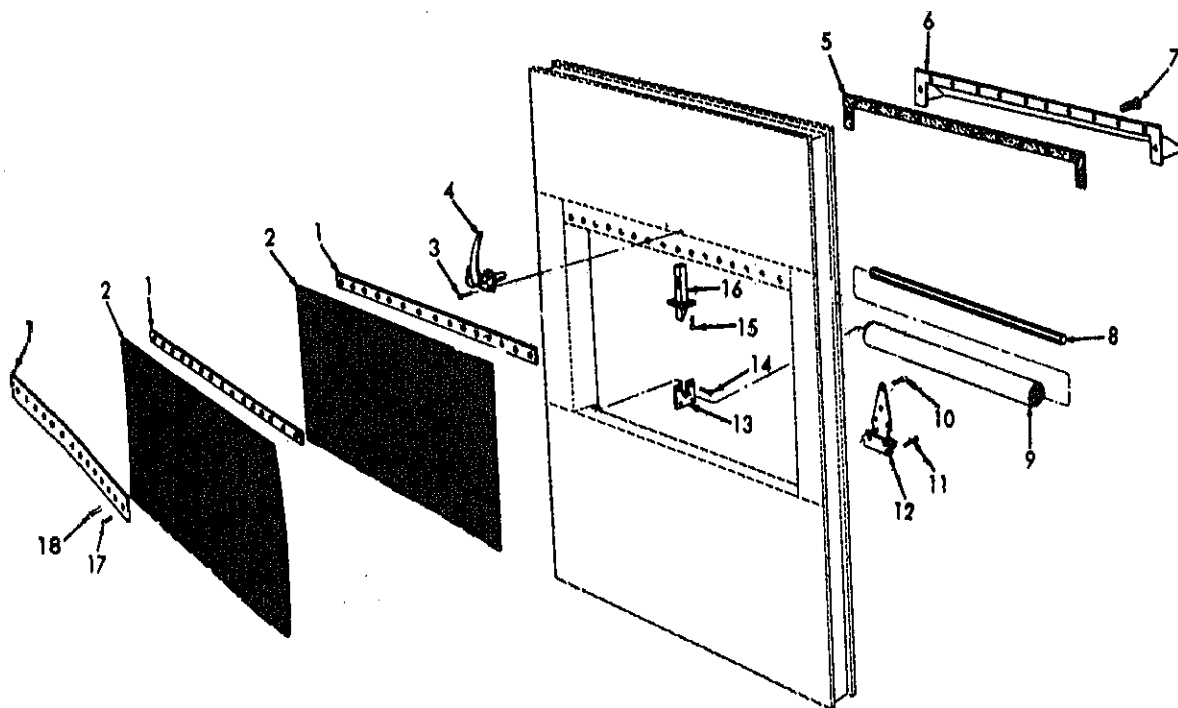


Figure 5. Conveyor Door.

INDEX TO PARTS FIGURE 5

REF NO.	ITEM NAME
1	SCREW
2	BUMPER
3	DOOR
4	GASKET
5	RETAINER

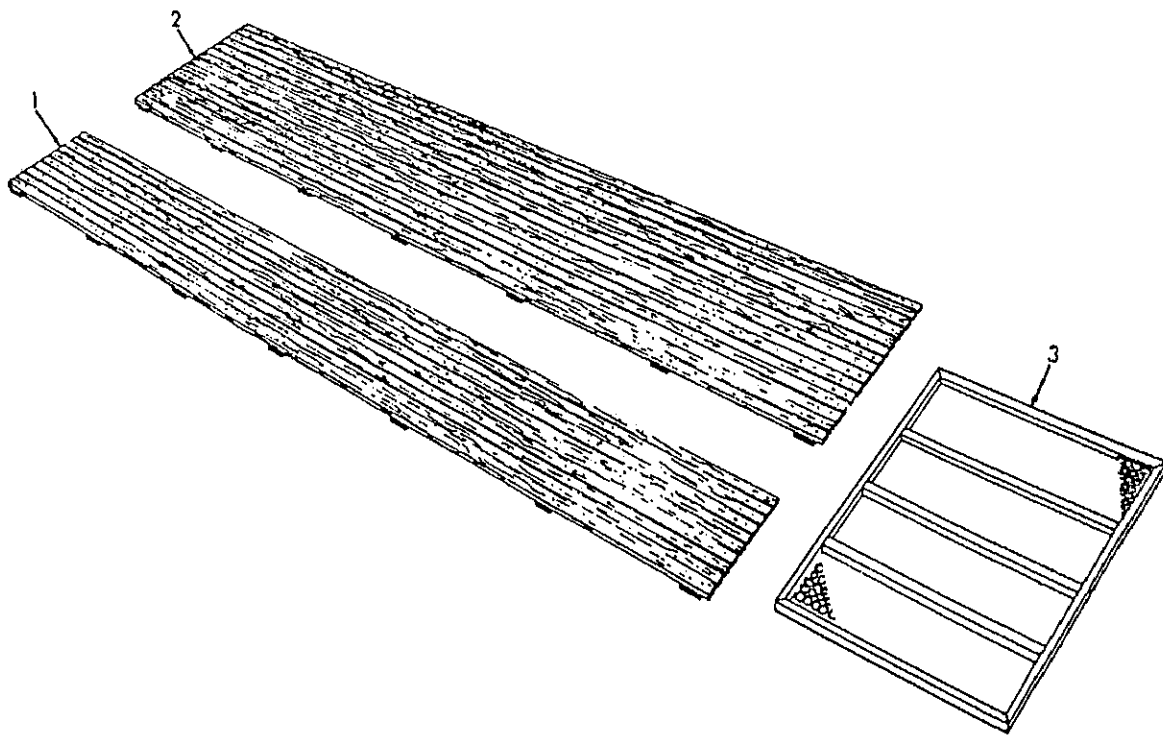


MSC 4110-204-25P/6

Figure 6. Panel G.

INDEX TO PARTS, FIGURE 6

REF. NO.	FUNCT GROUP	ITEM NAME	REF. NO.	FUNCT GROUP	ITEM NAME
1	8000	STRIP	10	8000	SCREW
2	8000	CURTAIN	11	8000	SCREW
	8000	SCREW	12	8000	HINGE
				8000	BRACKET



MSC 4110-204-25P/7

Figure 7. Floor Racks and Ramp.

INDEX TO PARTS, FIGURE 7

REF NO.	FUNCT GROUP	ITEM NAME

Basic issue tools and equipment		
Controls and instruments:	2-9	2-6
Controls and instruments	2-8	2-6
General	3-23	3-7
Conveyor door	3-26	3-8
Conveyor door curtain	3-27	3-8
Conveyor door canopy	3-24	3-7
Conveyor door latch and handle	3-25	3-8
Conveyor door roller		
	3-6	3-1
Daily preventive maintenance	1-4, 4-4	1-5, 4-1
Data, tabulated	1-3	1-1
Description		
Description and data:	1-3, 4-3	1-1, 4-1
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Major General, United States Army,
The Adjutant General.

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NG: State AG (3).

USAR: Same as Active Army except allowance is one copy to each unit.

For explanation of abbreviations used, see AR 320-50.



SOMETHING WRONG WITH THIS MANUAL?

THEN... JOT DOWN THE
DOPE ABOUT IT ON THIS
FORM, TEAR IT OUT, FOLD
IT AND DROP IT IN THE
MAIL!

FROM: (YOUR UNIT'S COMPLETE ADDRESS)

PFC JOHN DOE
COA, 3rd ENGINEER BN
FT. LEONARD WOOD MO 63108

DATE

16 DEC 74

PUBLICATION NUMBER

TM 5-6115-200-20 AND P

DATE

1 APR 72

TITLE

GENERATOR SET 10 KW
NSN 6115-00-231-7286

BE EXACT... PIN-POINT WHERE IT IS

IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

PAGE
NO.

PARA-
GRAPH

FIGURE
NO.

TABLE
NO.

6

2-1
a

In line 6 of paragraph 2-1a the
manual states the engine has 6
cylinders. The engine on my set
only has 4 cylinders. Change
the manual to show 4 cylinders

81

4-3

Callout 16 on figure 4-3 is pointing
at a bolt. In the key to
fig. 4-3, item 16 is called a
shim. Please correct one or the
other.

125 line 20

I ordered a gasket, item 19 on
figure B-16 by NSN 2910-00-762-3001.
I got a gasket but it doesn't fit.
The manual says I got what I

FILL IN YOUR
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DATE

TITLE

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IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

PAGE
NO.

PARA-
GRAPH

FIGURE
NO.

TABLE
NO.

TEAR ALONG DOTTED LINE

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THEN...JOT DOWN THE
DOPE ABOUT IT ON THIS
FORM, TEAR IT OUT, FOLD
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MAIL!

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[illegible]

EXACT...PIN-POINT WHERE IT IS

IN THIS SPACE TELL WHAT IS WRONG
AND WHAT SHOULD BE DONE ABOUT IT:

AG 5
NO.

PARA.
GRAPH

FIGURE
NO.TABLE
NO.

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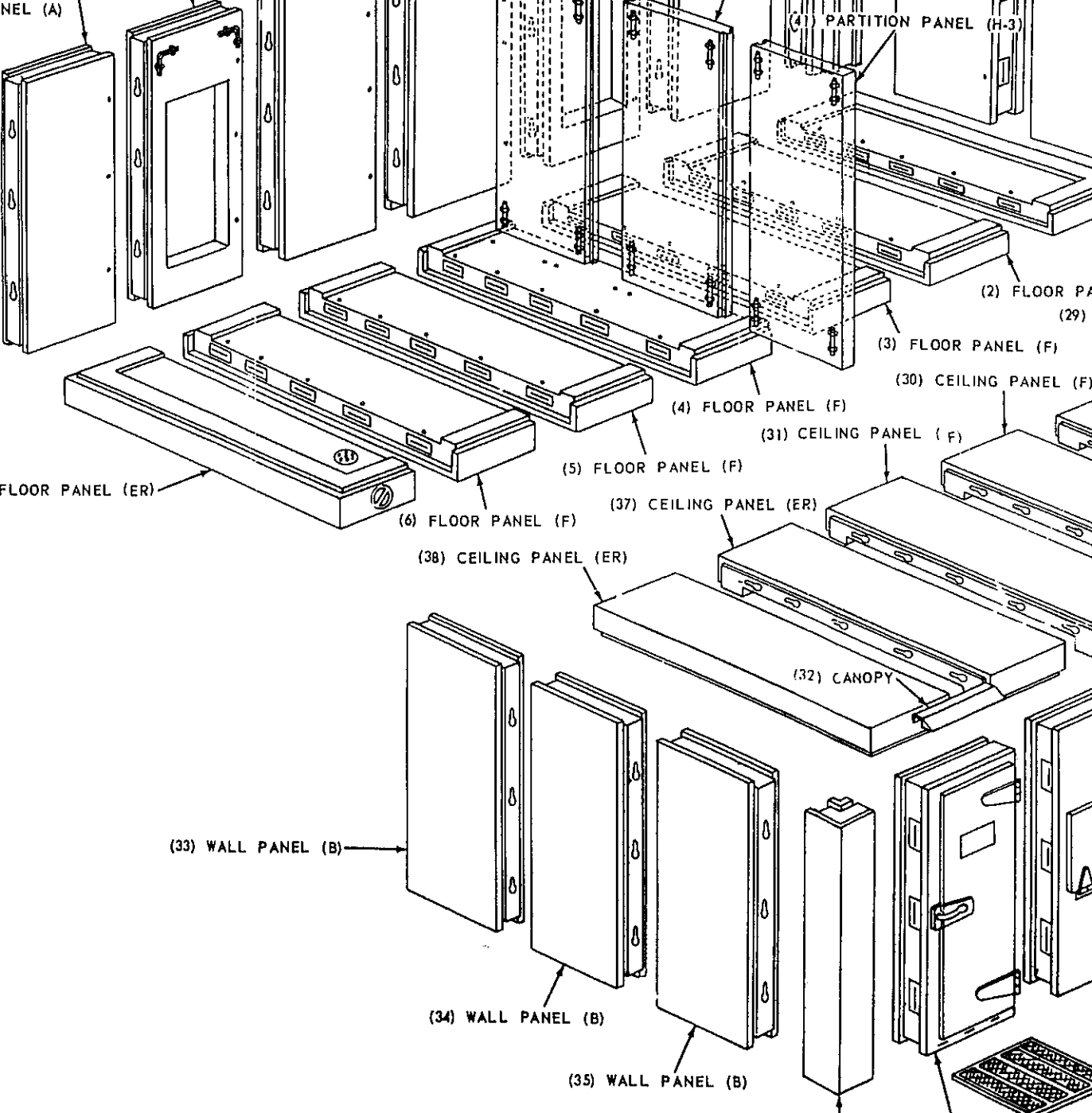
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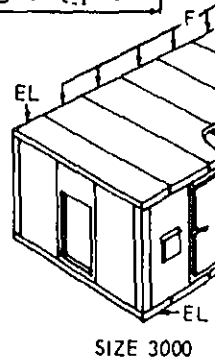
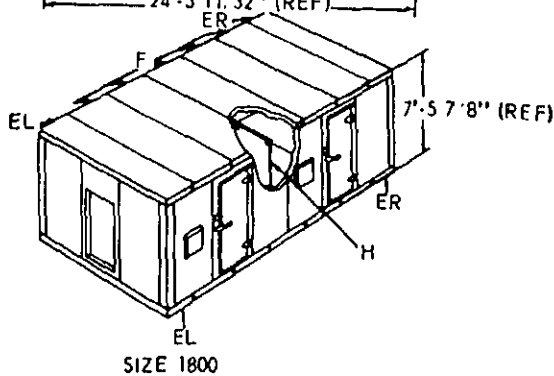
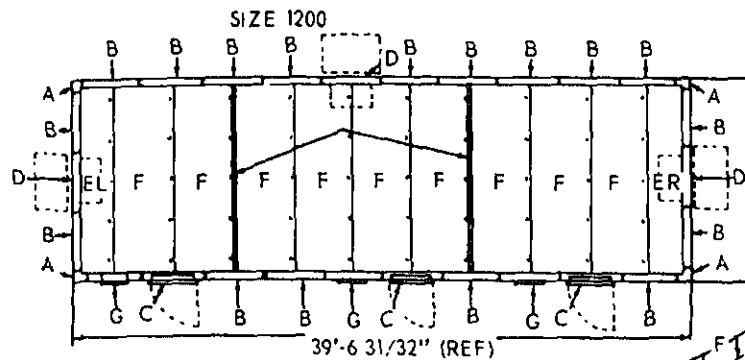
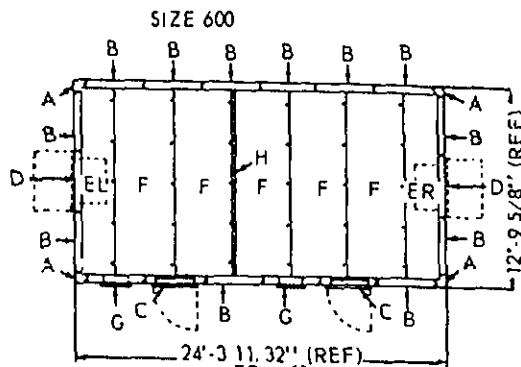
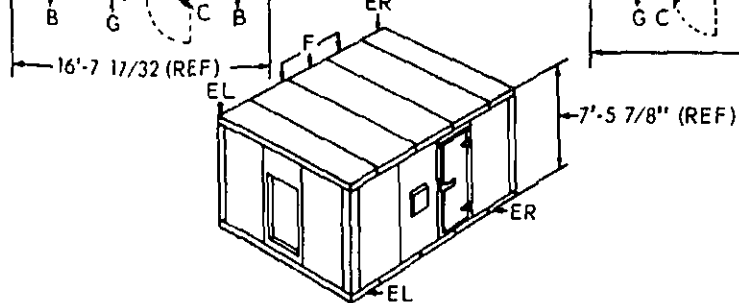
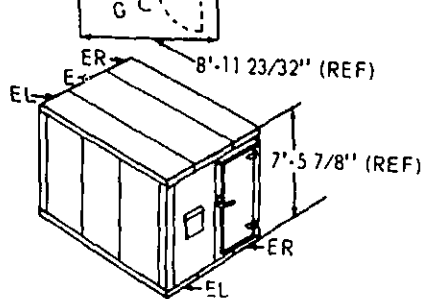
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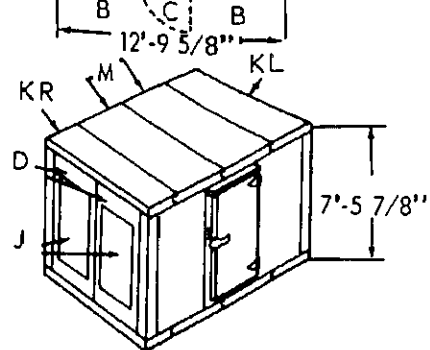
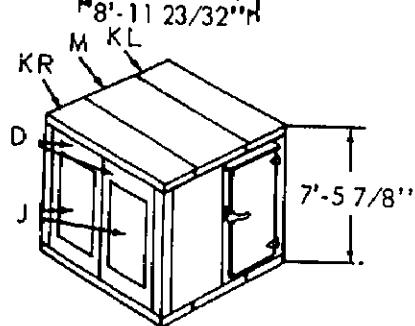




PT.	FASTENERS NO. REQ'D	A	B	C	D	EL	ER	F	G*	H-1	H-2	H-3	J	TOTAL	FLOOR R.
															LG
25	102	4	8	1	1	2	2	2	1	0	0	0	1	20	2
220	150	4	11	1	1	2	2	6	1	0	0	0	2	28	6
815	195	4	14	2	2	2	2	10	2	1	1	1	2	39	10
194	390	4	22	4	4	2	2	26	4	3	3	3	4	77	26

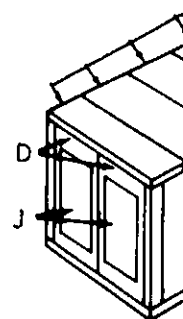
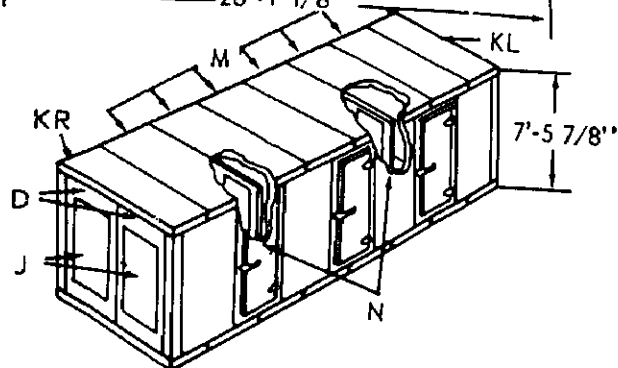
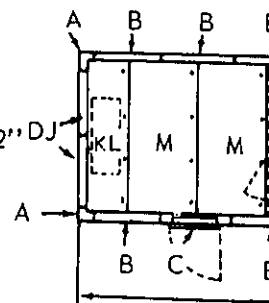
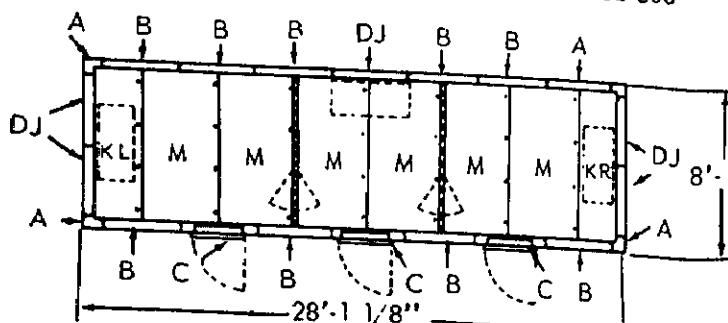
PANEL DESIG.	NOMENCLATURE	DRG. NO.
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C	WALK-IN DOOR PANEL	5-13-2655
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F	FLOOR OR CEILING PANEL, CENTER	5-13-2660
G	CONVEYOR DOOR PANEL	5-13-2670
H	PARTITION PANEL	5-13-2661

ME 4110-204-13/4-1 CS



SIZE 400

SIZE 600



SIZE 1400

400	405	84	2	4	5	1	2	2
600	605	106	2	4	7	1	2	2
800	795	128	4	4	7	1	4	2
1200	1175	172	5	4	8	3	5	2
1400	1375	194	5	4	10	3	5	2
1600	1565	216*	6	4	11	3	6	2

* WHEN DESIRED "G" OR "C" PANELS MAY BE OMITTED WITH

PANEL DESIG.	NOMENCLATURE
A	CORNER PANEL
B	STD. WALL PANEL
C	WALK-IN DOOR PANEL
	WALK-IN DOOR
'D' W/ 'J'	UNIT COOLER PANEL
KL	FLOOR OR CEILING PANEL
KR	FLOOR OR CEILING PANEL
M	FLOOR OR CEILING PANEL, CENTER
N	PARTITION